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PROGRAM FOR
LAND AND WATER RESOURCES DEVELOPMENT
OF THE
MISSOURI RIVER BASIN

Including the expenditures and estimated requirements
for the six year period 1953-1958

MISSOURI BASIN INTER-AGENCY COMMITTEE

FOURTH REVISION - OCTOBER 1951

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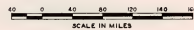
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Total area of United States 3,022,387 sq. mi.
 Total area of Missouri River Basin 529,000 sq. mi.
 Missouri River Basin comprises 17.5% of total
 area of Continental United States.

STATE	% IN BASIN
COLORADO	29
IOWA	30
KANSAS	50
MINNESOTA	2
MISSOURI	52
MONTANA	82
NEBRASKA	100
NORTH DAKOTA	59*
SOUTH DAKOTA	97
WYOMING	76

* 70% in the Missouri Basin Program





SIX-YEAR PROGRAM
MISSOURI BASIN INTER-AGENCY COMMITTEE

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SIX-YEAR PROGRAM MISSOURI BASIN INTER-AGENCY COMMITTEE

PREFACE

The Missouri Basin Inter-Agency Committee was created in April 1945 to provide a means through which the field representatives of the participating Federal Agencies might effectively interchange information and coordinate activities, among themselves and with the Missouri River Basin States, in the preparation of reports and in the planning and execution of works for the control and use of the waters of the Basin and for the development of the Basin's resources. The six-year program is a tool which will assist the Inter-Agency Committee to fulfill part of its responsibility for coordination of activities of the various agencies.

The broad over-all goal of the Missouri Basin Development Program is the full productive use of the land and water resources in a manner that will best meet the needs of the Basin and make the greatest long-time contribution to the strength and progress of the Nation. The objective of the program is to provide a comprehensive, basin-wide development including the expanding of irrigation, conserving and improving the agricultural resources, reducing flood water and sediment damages, furnishing low-cost water transportation, increasing the utilization of the power potential, exploiting and processing the varied mineral resources, enhancing the recreational potentials, providing a base for industrial expansion, safeguarding the quality of water necessary for its many uses, and other allied purposes.

The six-year program is prepared primarily for the use of the Missouri Basin Inter-Agency Committee and sets forth in the tabular sheets in this booklet a schedule for the orderly development of the resources of the Missouri River Basin. It is a revision of previous six-year programs and is subject to further revision annually or periodically as world-wide conditions, national fiscal policies, national and basin needs, or other circumstances may warrant. This program was compiled from data submitted by the States and various Federal Agencies actively participating in the development of the land and water resources of the basin. The rate at which each phase of the program may proceed is indicated by the amount of money programmed for expenditure each year throughout the next six-year period.

Large segments of the program have already been completed and are now serving useful purposes. Completion of some projects is virtually guar-

anteed by appropriations already made. Still other projects are in various stages of construction or planning. Other important portions still await Congressional authorizations. Space does not permit the listing of the status of each phase of works or project in this preface but this can be determined from the appended tables.

The program as given in the tabulation consists of two principal types of activities. The first is the construction or installation of projects and measures and specific items of study or investigation which are subject to delimitation. For these items the report shows a total estimated cost of \$9,384,355,000, an increase of \$865,000,000 over the previous six-year program. The increase is due principally to increased prices. Some items have been added, and some plans modified. A total of \$1,131,668,000 had been expended to the end of fiscal year 1951 and \$265,344,000 is available for expenditure during fiscal year 1952. These amounts constitute 15 percent of the estimated total cost of the program. Many phases have reached actual accomplishment and are being usefully used; many others have been initiated.

The second type of activity which makes up the remaining items of the program consists of investigations, engineering and other technical services, data collection and other supporting services. These are continuing activities. The estimated average cost during the coming six years for this type of activity is \$86,000,000. These items contribute to the planning and design of future development and are essential to the efficient operation of completed works of development. Also included are educational and technical assistance to facilitate realization of optimum benefits.

The objectives, accomplishments and programs of the States and each Federal Agency is briefly discussed in the succeeding sections.

STATES OF THE MISSOURI BASIN

For many years the States of the Missouri Basin have carried on continuing programs of land and water conservation and development. Many of these programs are in cooperation or conjunction with comparable Federal programs. The work of some State Agencies has been or may be modified to supplement the activities of the various Federal Agencies. In some instances, special state appropriations are now being made for this purpose.

The various state programs are extremely important in spite of the fact that they are small as compared with the Federal programs. They serve, among other things, to coordinate the activities of individuals and Governmental Agencies for the better realization of the immense benefits of the over-all resources-development program.

All States have agricultural programs that include agricultural research, soil surveys, and extension work which contribute to soil and water conservation and development. These are important factors in the productive use of the land and water resources of the Basin. All States have programs for developing game, fish and forestation, as well as parks and recreation. They also have programs of public health and geological investigations which usually include minerals, water resources, and topographic and geologic mapping. Every state carries on a program for industrial development and expansion which is essential for a balanced economy in the Basin. In most instances, where the State has a general over-all state program, a portion of the cost has been included for that portion in the Missouri River Basin.

All States where irrigation is extensively practiced have provisions for administering state water laws; some of them have set up state agencies for the protection, conservation and utilization of their water resources, and, in addition, some of them have irrigation construction programs. Many States engage in special studies related to irrigation, flood control and other resource development.

In the installation of local flood protection works of the Corps of Engineers and the watershed treatment program of the U. S. Department of Agriculture, financial contributions from local interests are required. Such items as levees, local floodways, major gully stabilization and small retarding reservoirs may require local expenditures for modifying local highways, drainage works, furnishing rights-of-way, and similar items. The estimate of these costs is given for each state under the item State Government Subdivisions. Also included are estimates of municipal expenditures for pollution abatement, and expenditures of other subdivisions of government.

PUBLIC HEALTH SERVICE

The objective of the official health agencies, state and federal, is maximum utilization of the development plan for the improvement of environment as related to health. The program holds much promise for a better environment in localized areas, and for the greater development of the human

resources of the valley concurrent with and following the development of the physical resources of the area. The Public Health Service serves in a consulting capacity in matters relating to public health and water pollution control and, working in close cooperation with the State Health Departments, makes investigations and studies relating to the health aspects of the development program.

As early as 1943 the Public Health Service made a preliminary evaluation of pollution in the lower Missouri River and estimated minimum flows necessary at that time for stream sanitation. In 1947 the Public Health Service became actively interested in the broad features of land and water resource development in the Basin, and inaugurated close liaison with state and federal agencies regarding the health aspects of the development. With the passage of the Federal Water Pollution Act of 1948, and the attendant responsibility of developing, in cooperation with the States, a comprehensive program of water pollution control, the Public Health Service in June 1948 established the Missouri Drainage Basin Office. This action enabled the Public Health Service to facilitate cooperative work with other state and federal agencies interested in the Basin program.

As a result of these cooperative efforts sub-basin investigations of water pollution control in the Kansas, North Platte, Lower Platte, and Nebraska Sub-Basins have already been completed and reports written. Reports are nearing completion on water pollution studies of the Lower Missouri, South Platte, Missouri-Souris, Upper Missouri, Yellowstone, James, Big Sioux, Central Main Stem, Osage-Gasconade, and Grand-Charlton Sub-Basins. With release of these reports, basic work will have been completed preliminary to the development of a comprehensive water pollution control program for the Missouri Basin.

Substantial progress has been made on mosquito control investigations as related to the over-all development program, and during fiscal year 1952 investigations will be inaugurated on individual projects. Activities in fiscal year 1952 will be directed toward the completion and adoption of a comprehensive program of pollution control in cooperation with States, municipalities, and industries. In succeeding years additional emphasis will be placed on enforcement measures where interstate waters are concerned. The official health agencies will also continue their interest in sanitation of recreational areas and construction camps, municipal and industrial water supply, the sanitary quality of irrigation waters, and other environmental sanitation problems.

The continuation of close cooperation with the planners and constructors of the Missouri River Development Program will make possible the achievement of the objective of the health agencies.

FEDERAL POWER COMMISSION

The Commission has jurisdiction over interstate transmission of electric energy and the public utilities engaged therein, and over the interstate transportation and sale of natural gas for resale. The Commission is authorized and directed to make investigations regarding the generation of electric energy, however produced, and its transmission, distribution and sale throughout the United States. The Federal Power Commission is also responsible for recommending jointly with the Corps of Engineers, the provision to be made for generation of hydroelectric power in projects constructed by the Corps of Engineers. The Flood Control Act of 1944, which directs the Secretary of the Interior to sell the hydroelectric power generated at reservoir projects under control of the Department of the Army, provides that the rates at which the power is sold shall be subject to confirmation and approval by the Federal Power Commission.

The role of the Federal Power Commission, as it specifically relates to the Missouri River Basin includes: The licensing of water power developments involving lands or waters of the United States subject to the jurisdiction of the Congress; supervision of licensed projects including periodic inspections of projects under construction and in operation; collection, analysis and publication of statistical and operating data pertaining to the electric power industry, including electric facility maps; general investigations of power requirements and supply, both present and future; the studies of future possibilities of interconnection and coordination of electric power facilities in the interest of economy and strengthening of power supply; studies of potential river development projects and their utilization in the development of hydroelectric power including examination of projects proposed by other agencies to insure the maximum development of hydroelectric power consistent with their other purposes, together with formal recommendations thereto; and studies to determine the manner in which the electric output of the Missouri Basin hydroelectric projects may be used to assist in supplying the power requirements of the Basin and how these projects may best be coordinated with facilities of existing systems.

A valuable contribution to the planning and development of the Basin is the Power Market Survey being made by the Commission, embracing the en-

tire Missouri Basin. The survey is designed primarily to meet the needs of the Commission and other Government agencies, such as the Bureau of Reclamation and Corps of Engineers in their studies of multiple-purpose projects and river-development programs. This survey is in two parts, Part I, which has already been published, deals with the present and estimated future power requirements of the area and the need for additional generating capacity. It has been issued in six sections including power market surveys for five individual areas and a general report for the entire Basin; Part II, which is nearing completion, will indicate the hydroelectric installations most suitable for meeting the Basin's estimated power requirements and how these installations may be most effectively utilized. Basically, it is a general survey of power supply including consideration of hydroelectric installations that are planned or under construction in the Missouri Basin.

The Commission will continue to fulfill its role in the future as it has in the past to forward the planning and development of the Missouri River Basin in cooperation with other Federal Agencies, State, local authorities, and others engaged in regional development activities.

UNITED STATES DEPARTMENT OF COMMERCE

The basic function of the Department of Commerce is to foster, promote and develop the nation's commerce, industry and transportation facilities. Its role in the development and stabilization of the economy of the Basin will become increasingly important as the accomplishments of the Basin's development program provide the means and needs for expansion of industry and trade. In addition, the Department acts as liaison between business interests and the Committee, in its deliberations on the development program.

Eight of the bureaus and agencies of the Department of Commerce are directly concerned in carrying out the Department's part in the Basin's development program.

The INLAND WATERWAYS CORPORATION is set up to promote and develop inland water transportation, service and facilities. To this end it operates a common carrier barge service on a number of important inland waterways. In the Basin, it operates from Omaha, Nebraska, to St. Louis, Missouri, on the Missouri River, a service which connects with its other lines to reach from Minneapolis, Minnesota, to New Orleans, Louisiana.

The COAST AND GEODETIC SURVEY, in addition to its task of surveying and charting the coasts of the United States, performs a wide variety of

services for the promotion of commerce and the development of our natural resources, including marine, aeronautical, geodetic, geomagnetic and seismological functions.

The Survey's part in the development of the basin includes surveys for flood control and reclamation studies, determination of geographic positions and elevations to provide a framework for mapping and other engineering work, and the issuance of aeronautical charts for use in air transportation.

The WEATHER BUREAU, through its airways weather service, climatological service, river and flood warning service and general weather service, issued daily weather reports, five-day and thirty-day outlook statements, flood and storm warnings and crop weather reports.

Its work in the Basin is of great importance to agriculture, business and industry, and to the agencies working directly on flood control and other projects. River stages are observed daily, and forecasts are made for the benefit of river navigation, in addition to flood stage forecasts. Precipitation measuring stations are maintained, and studies are made to determine the maximum rainfall amounts likely to fall over the Basin. Mountain snowfall stations provide forecasts of runoff from the snow fields for irrigation, flood control and hydroelectric power.

The BUREAU OF THE CENSUS and the OFFICE OF BUSINESS ECONOMICS provide comprehensive statistical data on population, business, agriculture and other aspects of the national economy. They develop basic economic and statistical indicators, and make analyses of the current economic situation and the outlook for the future.

In the development of the Basin they have made and will continue to make economic, industrial and marketing opportunity studies and will also furnish factual information to other groups interested in the Basin's economic development.

The OFFICE OF INDUSTRY AND COMMERCE furnishes information and assistance to businessmen on a large variety of problems, and acts as their representative in the Federal Government. The Office, and particularly its Area Development Division, promotes industry and commerce in the Basin by assisting local, state and regional development organizations in their plans for increasing industrial development, and by analyzing the potentialities of the Basin; and by aiding trade associations and other industry groups through applying the Department's services and information material to their problems.

In addition to these bureaus and agencies, the Bureau of Public Roads, the Civil Aeronautics Administration and the National Production Authority will make a significant contribution to the long range development of the basin. However, their specific contribution to land and water resource development at this time is not considered sufficiently pertinent to include data on their programs.

CORPS OF ENGINEERS, U. S. ARMY

The Corps of Engineers is primarily responsible, under law, for flood control and for river and harbor developments in the interests of navigation. In carrying out investigations and construction of works of improvement for these primary responsibilities, other water conservation and water use functions beneficial to the people of the area are also covered. In the development of all its projects the Corps of Engineers works closely with other Federal Agencies, states and local interests.

First work by the Corps of Engineers in the Missouri Basin was initiated in 1824 and consisted principally of snag removal to aid navigation. In 1882 construction of dikes and revetments was started to stabilize the banks of the river. Thus the early work of the Corps was primarily for navigation. However, in 1928 a series of comprehensive studies for navigation, flood control, irrigation and power was assigned to the Corps resulting in the well known "308" reports which formed a basis for Congress to adopt a Federal Policy with respect to flood control. Subsequently work has been carried on primarily for Flood Control and Navigation.

As of the end of Fiscal Year 1951 the Corps of Engineers had expended a total of \$827,464,000 in the basin, which can be broken down as follows:

Projects completed or in operation:

Navigation	\$ 797,000
Flood Control	23,730,000
Multiple-purpose	142,541,000

Projects under construction:

Flood control exclusively	\$ 48,836,000
Navigation and bank stabilization	192,010,000
Multiple-purpose	215,038,000
Investigations and planning	4,513,000

The total cost of the projects which have been completed or on which construction has been initiated amount to \$1,493,805,000 or 57% of the present total program of the Corps as shown in this six-year program.

In addition to the work already initiated, it is anticipated that as a



result of the 1951 floods, much work in the lower basin will be initiated. Completion of the work scheduled in the six-year program in the years 1953 through 1958 will result in protection for an extended area of over one and a half million acres of land against floods equal or exceeding those of past record and a substantial reduction in flood damages for about one million additional acres. The projects will also provide means for the generation of a very large quantity of hydroelectric power, will essentially complete the navigation project from Sioux City to the mouth, provide for the control of the Missouri River and many of its tributaries for useful purposes including navigation, irrigation, recreation, fish and wildlife, municipal water supply, and alleviation of stream pollution.

Upon completion of projects in the program, protection against all floods of record will be provided on the main stem of the Missouri River from Sioux City to the mouth, and the maintenance of a nine-foot channel for navigation will be assured for this same reach. Damages from floods on the major flood-producing streams will be considerably reduced or eliminated; major cities and several other important municipalities will have been provided with protection against floods equal to or in excess of past record. In addition, other functions being carried out will result in extensive benefits including the generation of substantial blocks of power, the storage of flood flows for use in irrigation projects of the Bureau of Reclamation, water supply, stream sanitation, and the development of recreational and wildlife facilities. The over-all flexible program of development will be supplemented or filled in by additional projects which will be authorized by Congress.

UNITED STATES DEPARTMENT OF AGRICULTURE

A watershed program for the Missouri River Basin has been recommended to the Congress by the Department of Agriculture (H. D. 373, 81st Congress, 1st Session).

The program includes those additional measures necessary to provide for an integrated and balanced program of development, conservation, and use of the land and water resources of the Missouri River Basin. The watershed program when authorized will complement the flood control, navigation, irrigation, and electric power projects approved in the Flood Control Act of 1944 and other legislation.

The program would be carried out cooperatively by the United States Department of Agriculture, the States, and the Land-Grant Colleges with the 582,000 farmers and ranchers of the Basin, and through soil conservation

districts, watershed districts, and other organized farmer groups. The public will share with private landowners an equitable part of the cost of installing the program. Farmers and ranchers will be given assistance in the form of direct aids, technical assistance including surveys and investigations, education and information, and credit. The program provides for necessary measures to achieve maximum public benefits from public lands under jurisdiction of the Department of Agriculture. The recommended program provides for:

(1) Application of conservation and improvement measures on grassland and cropland to maintain or increase production, reduce erosion, floodwater and sediment damage. Such measures include contour farming, terracing, grassed waterways and outlets, erosion-control structures, livestock water facilities, and seeding and reseedling of grass and cropland.

(2) Development, management and use of forests and forest ranges to increase the multiple benefits from these natural resources. These benefits come from the production of timber for lumber and other wood products, the use of ranges by livestock and wildlife and the establishment of recreational opportunities. In addition, good forest cover serves to preserve sources of water supplies in the mountainous areas, stabilize soil, and retard the rapid runoff from snow-melt and high intensity rain storms.

(3) Stabilizing measures for small watercourses to assure the safe disposal of water in small watersheds and the lesser tributary streams. This can be accomplished through the construction of gully-control structures, floodways, bank protection works, and small retarding basins for flood control, for protection of public investment in large reservoirs and other works, and for protection of land being destroyed by gully-erosion, bank cutting, swamping, and sedimentation.

(4) Assistance in the development of irrigation included in the program authorized under the Flood Control Act of 1944 and in development of other irrigation by State and private projects.

(5) Rehabilitation and improvement of existing drainage systems and the construction of new systems for areas not now properly drained including drainage systems for the farm lands which will be protected by levees authorized in the Flood Control Act of 1944. It is not intended to drain areas whose most beneficial use is for the preservation and enhancement of wildlife resource and for recreation.

(6) Soil surveys and land classification showing the characteristics, productivity, and location of soils to facilitate efficient development, conservation, and use of the land and water resources of the Missouri Basin.

(7) Research and investigations to guide and direct the expanded program of land, forest and water development so as to assure full completion of recommended action program with the least amount of costly trial and error.

(8) Cooperative extension education to develop understanding and active participation in the program of farm families; farm groups; civil and commercial organizations; local, county, and state institutions; and government agencies.

(9) Development and readjustment credit not available under the standards and authorities of present lenders, as necessary to cover requirements of farmers for farm acquisition, improvement and operation; and of groups of farmers for water facilities, soil and water conservation facilities, and marketing and processing facilities. This credit should be made available at times and places to enable farmers to develop their lands concurrently with public programs.

(10) Assistance to rural electrification borrowers in developing plans for extending service to the more sparsely settled farming areas and to make certain that activities under the national rural electrification program are properly related to the basin-wide development program.

To carry out the purposes of this program the Department of Agriculture will annually submit work plans, surveys, or statements giving the details of the proposed work in selected areas. In selecting areas that will be given priority for work plans under the Missouri Basin Agricultural Program, consideration will be given to the national need for agricultural products, the land, forest, and water problems and potential production capacities of the area, the construction plans for Federal projects authorized under the Flood Control Act of 1944 and subsequent legislation, and the ability and willingness of local people to carry out their responsibilities on the proposed work of improvement.

Plans and budgets for soil surveys and land classification, for research and investigations, and for cooperative extension education will be prepared cooperatively by the Department of Agriculture and the Land-Grant Colleges and will set forth the cooperative arrangements under which the

work is to be conducted.

The following nine bureaus of the Department of Agriculture are carrying out some portion of this recommended program for the Missouri Basin under provisions of the nationwide agricultural programs and will be responsible for carrying forward the accelerated watershed program recommended for authorization:

Agricultural Research Administration
Bureau of Agricultural Economics
Extension Service
Farm Credit Administration
Farmers Home Administration
Forest Service
Production and Marketing Administration
Rural Electrification Administration
Soil Conservation Service

The estimated total cost of the agricultural program as shown in column two of this report is taken from House Document 373, 81st Congress and represents the estimated cost of the job in the Missouri Basin as of July 1, 1949. Some of the needs are being met by use of regular funds, the balance will be accomplished only when additional funds are made available for the basin. Column 3 "Costs to end of Fiscal Year 1951" includes expenditures for the two fiscal years 1950 and 1951 from regular appropriations to the Department of Agriculture for a small part of the Missouri Basin program. About 2 percent of the program was accomplished in these two years. Column 4 "1952 Fiscal Year Funds" includes allocations from current appropriations to this Department for items of work covered by the above program. For 1953 fiscal year there are included regular funds for these programs at the same level as 1952 plus a first year complement of Missouri Basin funds of \$5,000,000 apportioned among the various purposes. The additional work scheduled for 1953 would be concentrated in certain critical areas. These critical areas in which the program should be accelerated have been selected in cooperation with state groups and on the basis of criteria indicated above.

In 1954 and subsequent years, expansion into additional areas is contemplated at an accelerated rate. It is expected that the whole program will be completed within a 30-year period.

The estimates included here take into account the national situation, the urgency for increased agricultural production, the imperative need for

protecting and maintaining our soil and water resources, as well as the urgency for bringing the watershed phases into balance with the program of engineering structures.

The rate of accomplishment to meet these urgent needs as set forth in the recommended program is contingent upon Congressional action.

UNITED STATES DEPARTMENT OF THE INTERIOR

The Department of the Interior deals primarily with the management, conservation, and development of natural resources. These resources include certain public lands and the Federal range, water and power resources, oil, gas and other mineral resources, certain forest resources, fish and wildlife resources and the National Park system.

In order to fulfill its broad responsibilities, the Interior Department utilizes thirteen agencies and bureaus, each responsible for a particular phase of the Department's work. Seven of its bureaus are directly concerned with the Missouri River Basin Development Program.

The BUREAU OF RECLAMATION'S purpose is to promote the development of agriculture and industrial economies through the utilization of land and water resources. It constructs and operates multiple-purpose projects providing for irrigation, hydroelectric energy, flood control, navigation, domestic and industrial uses, and other purposes.

At the close of fiscal year 1951, twelve major storage dams had been completed in the Missouri River Basin. These include Angostura, Dickinson, Shadahill, Heart Butte, Kortes, Cadar Bluff, Enders, Medicine Creek, Bonny, Olympus, Granby, and Horsetooth. Six more are now under construction including Trenton, Boysen, Canyon Ferry, Keyhole, Willow Creek, and Carter Lake. The total cost of projects which have been completed or on which construction has been started amounts to about \$750,000,000 or about 23% of the total program of the Bureau of Reclamation in the basin.

The program goals for the next six years include:

- (1) The irrigation of 407,000 acres of new land.
- (2) The provision of supplemental water for 752,000 acres of inadequately irrigated land.
- (3) The completion of power plants with an installed capacity of nearly 450,000 kilowatts.

The BUREAU OF INDIAN AFFAIRS was established to discharge the responsibility of the United States for the orderly incorporation of American Indian groups and individuals into the body politic.

The residual land holdings of about 70,000 Plains Indians in the

Missouri River Basin, totals about 15,000,000 acres located in the midst of this great program of resource development.

The Six-Year Program of the Bureau of Indian Affairs contained in this publication is geared in part to the anticipated progress of the Bureau of Reclamation and the Corps of Engineers, and is calculated to bring about the integration of the Indian citizen into general community life with particular regard to the changes that will come about in the economy of the Missouri River Basin as a result of the resource development plan.

The BUREAU OF LAND MANAGEMENT is custodian of the remaining 20 million acres of unreserved, unappropriated public domain in the Basin. The management and development or disposition of these lands and their resources to permit their maximum contribution to the local and national economy in a fully coordinated and integrated program for resource development is the primary goal. In addition, the Bureau of Land Management has the authority for providing cadastral surveys which establish the boundaries of the public lands, and form the basis for the legal descriptions of all land in the Basin. It is responsible for mineral leasing on public land and other lands on which the minerals have been reserved to the United States. The suitability of the public domain for farming, grazing, forestry, watershed, recreation, wildlife or combinations of these uses, is being determined under a comprehensive land classification program.

The BUREAU OF MINES is "a bureau of mining, metallurgic, and mineral technology." It promotes safety in the mineral industries and aids conservation of mineral resources. It conducts investigations on the mining, preparation, and utilization of minerals. It seeks to promote the progress of the industry through scientific technology and economic studies in the laboratory and the field.

There are substantial mineral resources in the land drained by the Missouri River. Most of the Nation's solid fuel reserves are in the Missouri River Basin but are being used to a limited degree; the Nation's largest chromite, and perhaps the largest manganese deposits are situated in the Basin. Non-metallic mineral resources, many of which have industrial uses, are being utilized to a very minor degree in the Missouri Basin. Phosphate and sulphur deposits have received only a moderate amount of attention and the Basin's sodium sulphate deposits still await developments.

A tremendous amount of basic information on the location of reserves, quality and treatment process necessary, has been developed for many of the



Basin's major mineral resources. In many cases this work will continue. However, except for occasional reappraisals of reserves as required by changes in industrial and defense demands, future emphasis will be placed on technical-use and economic-use patterns.

The FISH AND WILDLIFE SERVICE is charged with carrying out the provisions of laws designed to increase the stocks of fish and wildlife, resist depletion, disseminate knowledge, and extend the use of these renewable resources.

The far-reaching plans for the development of the basic resources of the Missouri River Basin will result in such drastic changes in land and water utilization that corresponding plans must be developed for the conservation and enhancement of fish and wildlife resources.

It is the responsibility of the Fish and Wildlife Service to study all the units of the Missouri River Basin Project and to report on the ultimate effects of proposed developments on fish and wildlife; to suggest ways by which the reservoirs and the developed areas may be made more productive, and to plan the physical developments requisite to an expanding utilization of game and fish.

The Fish and Wildlife Service supplies reports on planned units before they reach the construction stage. The program of the Fish and Wildlife Service, over the next six-year period, is directed in part to the planned construction progress of the Bureau of Reclamation and Corps of Engineers, and is so programmed as to achieve the greatest fish and wildlife benefit possible from the project in relation to its multi-purpose character.

The GEOLOGICAL SURVEY is primarily a fact-finding and research agency. It collects, analyzes, and interprets basic data on the water, mineral, and land resources, and prepares topographic and geologic maps and reports, that are a prerequisite for planning, constructing, and operating projects for the development and utilization of the resources of the Missouri River Basin. It also classifies the public lands as to their mineral content or their value for water power or storage; and it supervises technical operations related to mining, oil, and gas leases on the public, Indian, and naval petroleum reserve lands.

The NATIONAL PARK SERVICE administers the National Parks, monuments and similar reservations in conformity with statutory mandates.

Numerous reservoirs planned for the Missouri River Basin contain a tremendous recreation potential. It is the responsibility of the National Park Service to investigate the recreational possibilities at the proposed

reservoirs, and to recommend the facilities to be installed at reservoirs constructed by the Bureau of Reclamation.

As a part of their program the National Park Service, with the cooperation of the Smithsonian Institution, is now undertaking a "program of archeological and historical survey and recovery" in the Missouri Basin. This program began in 1946, reached a peak of activity in 1951, and should remain at that peak level through 1953, in order to accomplish the major share of the salvage operations necessary.

During the past six years, the National Park Service has prepared individual reservoir and sub-basin reconnaissance reports on all units actively investigated by the Bureau of Reclamation. During the next six years work must be speeded up on some phases of the recreational program.

MISSOURI BASIN INTER-AGENCY COMMITTEE

At present the Missouri Basin Inter-Agency Committee is composed of the following representatives from the six participating Federal Agencies and the following five Governors representing the ten Missouri Basin States:

Ben H. Greene, (Chairman)
Federal Power Commission

Harrell Mosbaugh
Department of Interior
Brig. Gen. D. G. Shingler
Corps of Engineers

Gladwin E. Young
Department of Agriculture

Charles E. Brokaw
Department of Commerce

Glen J. Hopkins
Federal Security Agency

Honorable Val Peterson
Governor of Nebraska

Honorable Norman Brunsdale
Governor of North Dakota

Honorable Sigurd Anderson
Governor of South Dakota

Honorable Forrest Smith
Governor of Missouri

Honorable John W. Bonnar
Governor of Montana

Publication of the following tabulation by the Missouri Basin Inter-Agency Committee shall not be interpreted as an approval of all features, projects and details of such program. It is understood that the projected works shall be adjusted in the process of coordination of the Basin-wide program.



EXPLANATION OF COLUMN HEADINGS

Column 1. Feature or Project (or State or Agency).

Column 1a. "Percent in Basin." Percentage of area of State lying in the Basin, with an appropriate footnote covering parts of States lying outside the Basin, and directly connected with the Basin program, such as North Dakota.

Column 2. "Estimated Total Cost." Estimated total cost for construction of projects, installing measures, related investigations, surveys and other facilitating works for which total costs have been estimated and for which total costs can be estimated. It should be noted that this does not include any of the continuing programs which will continue for indefinite periods.

Column 3. "Costs to end of Fiscal Year 1951." Costs to end of fiscal year 1951 for all phases of the Missouri Basin Development Program. This applies primarily to such projects or programs, listed in column 2, which have readily definable time of initiation.

Column 4. "1952 Fiscal Year Funds." Funds available for expenditure during fiscal year 1952, for all phases of Missouri River Basin Program.

Column 5 to 10 inclusive. "Funds Required by Fiscal Years." These figures based upon estimated needs to carry out the scheduled programs including the construction and installation of projects and measures; supporting and related programs and continuing programs related to land and water resource development being conducted by the various States and agencies cooperating in the Missouri River Basin Program. These figures do not include many maintenance and operation costs on works in operation but do include appropriate administrative costs.

Column 11. "Total Estimated Costs Six-Year Program, 1953-1958." This column shows sums of figures shown in columns 5 to 10 inclusive.

Column 12. "Funds Required After Fiscal Year 1958." Estimated funds required for completion of construction or installation of projects or measures shown in column 2 after fiscal year 1958.



SUMMARY

SIX YEAR PROGRAM FOR MISSOURI RIVER BASIN prepared by MISSOURI BASIN INTER-AGENCY COMMITTEE
IN THOUSANDS OF DOLLARS

Feature or Project	Percent in Basin	Estimated Total Cost	Costs to End of F.Y. 1951	1952 F.Y. Funds	Funds Required by Fiscal Years						Total Est. Costs 6 Yr. Program 1953-1958	Funds Req'd after F.Y. 1958
					1953	1954	1955	1956	1957	1958		
State of Colorado	29	(e) 16,271		9,478	10,405	11,404	12,403	8,930	6,647	6,862	56,651	29,585
State of Iowa	30	(c) 58,392	4,594	4,061	2,144	2,498	2,647	2,854	3,123	3,318	16,584	57,437
State of Kansas	50	(c) 53,822	2,664	1,398	3,717	2,386	4,539	2,168	2,520	2,725	18,055	53,315
State of Minnesota	2	(c) 1,069					17	35	53	75	180	889
State of Missouri	52	(c) 49,460	135	3,593	4,216	4,820	5,371	5,183	6,011	5,805	31,406	43,849
State of Montana	82	(c) 28,669	676	1,796	2,698	3,173	3,852	3,359	3,525	3,720	20,327	28,367
State of Nebraska	100	(c) 100,686	1,112	3,545	5,740	7,551	9,019	11,437	7,205	7,612	48,564	97,263
State of North Dakota (a)	52	(c) 31,725	6,056	3,081	3,857	3,514	3,655	3,048	3,221	3,437	20,732	30,169
State of South Dakota	97	(c) 58,420	2,782	3,594	4,365	3,292	3,380	3,745	3,936	4,003	22,721	36,476
State of Wyoming	76	(c) 21,390		2,817	1,838	2,039	2,632	2,356	2,159	2,199	13,223	20,666
Public Health Service				(b) 135	153	163	197	208	250	250	1,221	
Federal Power Commission				170	170	192	211	231	260	260	1,324	
Department of Commerce			3,482	2,784	3,051	4,008	4,034	3,284	3,104	2,996	20,477	
Corps of Engineers		2,737,868	627,464	(ee) 145,486	150,010	199,803	213,553	174,920	145,276	120,725	1,004,287	960,621
Department of Agriculture		3,032,867	62,723	32,711	37,715	48,479	64,945	90,717	104,658	120,423	466,937	2,470,496
Department of Interior		(c) 3,193,716	438,996	108,727	166,589	197,014	211,564	218,980	209,005	207,832	1,210,984	1,732,898
GRAND TOTAL		9,384,355	1,150,684	323,376	396,668	490,336	541,919	531,455	500,953	492,342	2,953,673	5,563,031

SUMMARY BY STATES

SIX YEAR PROGRAM FOR MISSOURI RIVER BASIN prepared by MISSOURI BASIN INTER-AGENCY COMMITTEE
IN THOUSANDS OF DOLLARS

Feature or Project	Percent in Basin	Estimated Total Cost	Costs to End of F.Y. 1951	1952 F.Y. Funds	Funds Required by Fiscal Years						Total Est. Costs 6 Yr. Program 1953-1958	Funds Req'd after F.Y. 1958
					1953	1954	1955	1956	1957	1958		
Total for State of Colorado	29	(c) 507,535	146,249	34,904	38,201	31,596	37,701	35,264	32,865	30,718	206,345	214,810
Total for State of Iowa	30	(c) 424,225	19,529	7,545	6,843	9,801	12,978	14,692	14,923	16,112	75,349	351,566
Total for State of Kansas	50	(c) 937,871	61,430	22,078	32,592	51,237	57,762	61,549	44,179	35,009	282,328	603,151
Total for State of Minnesota	2	(c) 19,636	449	441	456	503	1,068	1,296	1,445	1,661	6,429	14,250
Total for State of Missouri	52	(c) 1,068,698	110,451	15,401	28,668	34,729	41,288	45,596	49,942	54,939	255,162	731,000
Total for State of Montana	82	(c) 1,471,682	190,505	28,086	46,867	75,769	103,983	103,288	81,846	86,314	498,067	863,052
Total for State of Nebraska	100	(c) 1,695,345	232,981	42,845	47,923	68,713	74,413	77,527	80,106	67,212	415,894	1,078,226
Total for State of North Dakota (a)	59	(c) 1,078,493	135,972	62,161	67,407	73,802	67,922	49,409	51,270	53,315	363,125	593,529
Total for State of South Dakota	97	(c) 1,442,800	124,744	85,056	94,138	100,646	95,066	87,140	88,344	87,566	552,900	769,934
Total for State of Wyoming	76	(c) 738,070	128,374	24,859	33,573	43,540	49,738	55,694	56,033	59,496	298,074	342,514
Not Distributed by States (Dept. of Agr.)		(c) 30,300										
GRAND TOTAL		9,414,655	1,150,684	323,376	396,668	490,336	541,919	531,455	500,953	492,342	2,953,673	5,563,031

COLORADO

SIX YEAR PROGRAM FOR MISSOURI RIVER BASIN prepared by MISSOURI BASIN INTER-AGENCY COMMITTEE IN THOUSANDS OF DOLLARS

Feature or Project	Estimated Total Cost	Costs to End of F.Y. 1951	1952 F.Y. Funds	Funds Required by Fiscal Years						Total Est. Costs 6 Yr. Program 1953-1958	Funds Req'd after F.Y. 1958
				1953	1954	1955	1956	1957	1958		
STATE OF COLORADO											
Agricultural Program											
Agricultural Extension Service			128	135	135	135	135	135	135	810	
Agricultural Experiment Station			140	140	160	180	195	195	195	1,065	
Game and Fish Department (o)			593	639	641	732	696	634	631	3,973	
Administration of State Forest Lands			8	8	8	8	8	8	8	48	
Geological Investigations											
Underground Water			10	10	10	10	10	10	10	60	
Minerals			5	5	5	5	5	5	5	30	
Public Health			3	3	3	3	3	3	3	18	
Administration of State Water Laws			114	114	114	114	114	114	114	684	
Water Resources Development											
Studies and Research			40	40	40	40	40	40	40	240	
Subtotal			1,041	1,094	1,116	1,227	1,206	1,144	1,141	6,928	
State Government Subdivisions											
Flood Control	3,603			10	107	1,473	350	353	300	2,590	1,013
Municipal Pollution Abatement			180	450	500	600	897	897	897	4,241	1,794
Watershed Treatment Works (p)	12,668			53	157	175	224	264	399	1,272	11,396
Municipal Water Resources Development			7,852	8,361	9,053	8,428	5,718	3,451	3,584	38,595	15,382
Administration - No. Colo. Water Conservancy District			35	35	40	40	40	45	45	245	
Subtotal	16,271		8,067	8,909	9,857	10,716	7,229	5,007	5,225	46,943	29,585
Federal Grant-in-Aid											
Agricultural Extension Service			127	134	134	134	134	134	134	804	
Agricultural Experiment Station			238	263	292	320	355	355	355	1,940	

COLORADO
SIX YEAR PROGRAM FOR MISSOURI RIVER BASIN prepared by MISSOURI BASIN INTER-AGENCY COMMITTEE
IN THOUSANDS OF DOLLARS

Feature or Project	Estimated Total Cost	Costs to End of F.Y. 1951	1952 F.Y. Funds	Funds Required by Fiscal Years						Total Est. Costs 6 Yr. Program 1953-1958	Funds Req'd after F.Y. 1958
				1953	1954	1955	1956	1957	1958		
STATE OF COLORADO (Continued)											
Federal Grant-in-Aid (Continued)											
Public Health			5	5	5	6	6	7	7	36	
Subtotal			370	402	431	460	495	496	496	2,780	
Subtotal - State of Colorado	16,271		9,478	10,405	11,404	12,403	8,930	6,647	6,862	56,651	29,585
PUBLIC HEALTH SERVICE											
Water Pollution Control			4	5	9	6	6	6	8	40	
Mosquito Control Investigations			5	5	5	5	10	10	10	45	
Subtotal - Public Health Service			9	10	10	11	6	19	19	85	
FEDERAL POWER COMMISSION											
River Basin Surveys			7	5	9	9	10	11	11	56	
Power Requirements and Supply			9	9	9	9	7	6	8	39	
Licensed Project Work			2	2	3	3	3	3	3	17	
Subtotal - Federal Power Comm.			14	14	16	18	20	22	22	112	
DEPARTMENT OF COMMERCE											
Coast and Geodetic Survey		5	75	100	75	30	8	4		217	
Weather Bureau											
Flood Forecasting and Water Supply Forecasting Service		9	9	18	22	27	32	36	35	170	
Hydroclimatic network		4	4	9	12	14	17	20	18	90	
Basic data processing and analysis		2	2	6	8	8	8	8	4	42	
Supporting services		2	2	10	15	15	15	15	15	85	

COLORADO

SIX YEAR PROGRAM FOR MISSOURI RIVER BASIN prepared by MISSOURI BASIN INTER-AGENCY COMMITTEE IN THOUSANDS OF DOLLARS

Feature or Project	Estimated Total Cost	Costs to End of F.Y. 1951	1952 F.Y. Funds	Funds Required by Fiscal Years						Total Est. Costs 6 Yr. Program 1953-1958	Funds Req'd after F.Y. 1958
				1953	1954	1955	1956	1957	1958		
DEPARTMENT OF AGRICULTURE (Continued)											
Program of Research and Investigation	5,130	186	137	178	256	369	605	583	612	2,603	2,204
Program of Extension Education	4,205			40	50	63	83	98	120	454	3,751
Supporting Credit Program (Administrative only)											
Rural Electrification (Special Studies only)	5									5	
Subtotal - Dept. of Agriculture	180,155	3,486	2,000	3,246	4,571	5,493	6,765	7,529	8,787	36,391	138,278
										5	
DEPARTMENT OF THE INTERIOR											
Bureau of Reclamation - Region 7											
Narrows	39,310	1,075	185	2,910	6,515	6,650	6,100	5,800	2,166	30,141	7,909
St. Francis (also Kansas)	15,271	13,403	91	169	204	848	394	1	2	1,618	159
North Republican Unit	2,238										2,238
Colorado-Big Thompson Proj.	157,624	113,082	21,500	17,300	2,600					19,900	3,142
Subtotal	214,443	127,560	21,776	20,379	9,319	7,498	6,494	5,801	2,168	51,659	13,448
U. S. Geological Survey											
Topographic Surveys and Mapping			180	400	400	300	310	220	230	1,860	
Geologic and Mineral Resource Surveys and Mapping			46	88	87	94	106	107	107	589	
Water Resources Investigations			111	256	287	294	296	301	298	1,732	
Classification of Lands			10	15	17	19	22	22	24	119	
Supervision of Mining and Oil and Gas Leases			42	50	55	60	63	73	73	374	
Subtotal			389	809	846	767	797	723	732	4,674	

COLORADO
SIX YEAR PROGRAM FOR MISSOURI RIVER BASIN prepared by MISSOURI BASIN INTER-AGENCY COMMITTEE
IN THOUSANDS OF DOLLARS

Feature or Project	Estimated Total Cost	Costs to End of F.Y. 1951	1952 F.Y. Funds	Funds Required by Fiscal Years						Total Est. Costs 6 Yr. Program 1953-1958	Funds Reqd after F.Y. 1958
				1953	1954	1955	1956	1957	1958		
DEPARTMENT OF THE INTERIOR (Continued)											
Fish and Wildlife Service											
Management of Fish and Wildlife Resources											
Administration of Fish and Game Laws			5	7	7	7	7	8	7	43	
Propagation and Distribution of Food Fishes			12	13	14	14	15	15	15	86	
Mammal and Bird Reservations			5	38	46	46	46	51	51	278	
Control of Predatory Animals and Injurious Rodents			18	41	41	41	40	40	40	243	
Investigation of Fish and Wildlife Resources											
Research on Fish and Fisheries			6	25	10	8	8	8	8	67	
Research on Birds and Mammals			88	113	114	115	116	117	118	693	
Construction											
National Wildlife Facilities			100	580	200	200	200	200	200	1,580	
Federal Aid in Wildlife Restoration			124	124	124	124	124	124	124	744	
Federal Aid to Sportfishing			26	26	26	26	26	25	25	154	
Regional Office Administration			8	24	14	14	14	14	14	94	
River Basin Studies											
Cooperation with Corps of Engineers		1		3	3	3	3	4	3	19	
Cooperation with Bureau of Reclamation		51	12	20	21	21	21	22	21	126	
Basin-Wide Studies		29	3	12	13	4	6	3	4	42	
Subtotal		81	407	1,026	633	623	626	631	630	4,169	
Bureau of Mines											
Fuels											
Coal (q)			75	189	190	190	195	195	200	1,159	
Petroleum and Gas			15	75	70	60	60	60	60	385	

COLORADO

SIX YEAR PROGRAM FOR MISSOURI RIVER BASIN prepared by MISSOURI BASIN INTER-AGENCY COMMITTEE IN THOUSANDS OF DOLLARS

Feature or Project	Estimated Total Cost	Costs to End of F.Y. 1951	1952 F.Y. Funds	Funds Required by Fiscal Years						Total Est. Costs 6 Yr. Program 1953-1958	Funds Req'd after F.Y. 1958
				1953	1954	1955	1956	1957	1958		
DEPARTMENT OF THE INTERIOR (Continued)											
Bureau of Mines (Continued)											
Minerals and Metals											
Ferrous Metals			1	31	16	16	16	18	18	115	
Nonferrous Metals			1	2	2	3	3	3	4	17	
Nonmetallic Minerals			55	77	77	77	77	77	78	463	
Control of Coal Deposit Fires			20	20	20	20	20	20	20	120	
Health and Safety			35	40	40	40	41	41	41	243	
Administration			18	21	22	22	23	23	24	135	
Subtotal			220	455	437	428	435	437	445	2,637	
Bureau of Land Management											
Management of Lands and Resources											
Grazing			5	20	20	17	17	15	15	104	
Forestry			1	2	2	2	2	2	2	12	
Resource Development and Rehabilitation											
Soil and Moisture Conservation			11	20	20	20	25	27	27	139	
Range Improvement			1	1		1			1	3	
Fire Control			1	1	1	1	1	1	1	6	
Lease and Disposal of Lands and Resources			2	10	10	10	10	10	10	60	
Land Classification and Resource Inventory											
Regular Program			1	2	2	2	2	2	1	11	
Special MBE Program	40	21	6	7	6					13	

SIX YEAR PROGRAM FOR MISSOURI RIVER BASIN prepared by MISSOURI BASIN INTER-AGENCY COMMITTEE
IN THOUSANDS OF DOLLARS

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IOWA

SIX YEAR PROGRAM FOR MISSOURI RIVER BASIN prepared by MISSOURI BASIN INTER-AGENCY COMMITTEE
IN THOUSANDS OF DOLLARS

Feature or Project	Estimated Total Cost	Costs to End of F.Y. 1951	1952 F.Y. Funds	Funds Required by Fiscal Years						Total Est. Costs 6 Yr. Program 1953-1958	Funds Req'd after F.Y. 1958
				1953	1954	1955	1956	1957	1958		
STATE OF IOWA											
Agricultural Development			375	375	375	375	375	375	375	2,250	
Highways		128	220	220	220	220	220	220	220	1,320	
Conservation Commission		3,200	525	300	300	300	300	300	300	1,800	1,000
Soil Conservation Committee		500	300	300	500	500	500	500	500	2,800	
Public Health Engineering - State Funds			12	14	24	24	24	24	24	134	
Federal Grants in Aid for Public Health			15	15	15	15	15	15	15	90	
Flood Control and Natural Resources		20	15	15	20	20	20	20	20	115	
Mine Inspection			4	4	5	5	5	5	5	29	
Geological Survey			27	30	30	30	30	30	30	180	
Development Commission			32	27	27	27	27	27	27	162	
Subtotal		3,848	1,525	1,300	1,516	1,516	1,516	1,516	1,516	8,880	1,000
State Government Subdivisions											
Flood Control	2,090	746	75	300	425	230	160	150		1,265	4
Watershed Treatment Works (p)	56,302		87	87	157	501	778	1,057	1,402	3,982	52,233
Municipal Sewage Treatment			2,374	457	400	400	400	400	400	2,457	4,200
Subtotal	58,392	746	2,536	844	982	1,131	1,338	1,607	1,802	7,704	56,437
Subtotal - State of Iowa	58,392	4,594	4,061	2,144	2,498	2,647	2,854	3,123	3,318	16,584	57,437
PUBLIC HEALTH SERVICE											
Water Pollution Control			5	6	6	8	8	11	11	50	
Mosquito Control Investigations					1					1	
Subtotal - Public Health Service			5	6	7	8	8	11	11	51	

IOWA

SIX YEAR PROGRAM FOR MISSOURI RIVER BASIN prepared by MISSOURI BASIN INTER-AGENCY COMMITTEE IN THOUSANDS OF DOLLARS

Feature or Project	Estimated Total Cost	Costs to End of F.Y. 1951	1952 F.Y. Funds	Funds Required by Fiscal Years						Total Est. Costs 6 Yr. Program 1953-1958	Funds Req'd after F.Y. 1958
				1953	1954	1955	1956	1957	1958		
FEDERAL POWER COMMISSION											
River Basin Surveys			5	5	6	7	7	8	8	41	
Power Requirements and Supply Studies			4	4	5	5	6	7	7	34	
Licensed Project Work			2	2	2	2	2	2	2	12	
Subtotal - Federal Power Comm.			11	11	13	14	15	17	17	87	
DEPARTMENT OF COMMERCE											
Coast and Geodetic Survey		28	4	4	72	115	71	85		347	
Weather Bureau											
Flood Forecasting Service		14	14	18	22	25	30	34	32	161	
Hydroclimatic Network		2	2	4	6	7	9	10	9	45	
Basic Data Processing & Analysis		2	2	7	10	10	10	10	5	52	
Supporting Services		2	2	10	16	16	16	16	16	90	
Inland Waterways Corporation (See under Missouri)											
Economic Information, Studies and Surveys		237	162	141	214	214	138	123	126	956	
Subtotal - Dept. of Commerce		285	186	184	340	387	274	278	188	1,651	
CORPS OF ENGINEERS											
Sioux City	1,100	1			50	500	549			1,099	
Council Bluffs	2,450	2,305	145								
Little Sioux River	4,100	149	3	1,000	1,500	1,448				3,948	
Missouri River Agricultural Levees	15,505	6,150	1,020	1,000	2,000	2,000	2,000	1,000	335	8,335	

IOWA

SIX YEAR PROGRAM FOR MISSOURI RIVER BASIN prepared by MISSOURI BASIN INTER-AGENCY COMMITTEE
IN THOUSANDS OF DOLLARS

Feature or Project	Estimated Total Cost	Costs to End of F.Y. 1951	1952 F.Y. Funds	Funds Required by Fiscal Years						Total Est. Costs 6 Yr. Program 1953-1958	Funds Reqd after F.Y. 1958
				1953	1954	1955	1956	1957	1958		
CORPS OF ENGINEERS (Contd)											
Denison	62	4									58
Examination and Surveys	600	375		70	50	20				140	85
Nishnabotna	236	236									
Big Sioux Harbor	758										758
Tributaries of Missouri River	30,000										30,000
Subtotal - Corps of Engineers	54,811	9,220	1,168	2,070	3,600	3,968	2,549	1,000	335	13,522	30,901
DEPARTMENT OF AGRICULTURE											
Program of Conservation and Improvement Measures for Grassland and Cropland	118,963	2,759	1,429	1,429	1,829	3,190	5,057	5,475	6,035	23,015	91,760
Program for Forest and Forest Range Lands	10,025	25	15	15	115	203	263	314	348	1,258	8,727
Program for Stabilizing Measures for Small Watercourses	160,864	1,916	250	250	450	1,430	2,220	3,020	4,010	11,380	147,318
Program to Improve Drainage on Agricultural Lands	11,499	580	220	220	320	435	506	727	820	3,028	7,671
Program of Soil Surveys and Land Classification	1,580	10	10	10	35	40	70	70	70	295	1,265
Program of Research and Investigation	2,052	60	20	64	99	138	223	199	219	942	1,030
Program of Extension Education	6,007				45	65	131	139	172	552	5,455
Subtotal - Dept. of Agriculture	310,990	5,350	1,944	1,988	2,893	5,501	8,470	9,944	11,674	40,470	263,226
DEPARTMENT OF THE INTERIOR											
U. S. Geological Survey											
Topographic Surveys and Mapping			15	215	215	215	230	240	260	1,375	
Water Resources Investigations			24	64	68	74	93	106	111	516	
Subtotal			39	279	283	289	323	346	371	1,891	

IOWA
SIX YEAR PROGRAM FOR MISSOURI RIVER BASIN prepared by MISSOURI BASIN INTER-AGENCY COMMITTEE
IN THOUSANDS OF DOLLARS

Feature or Project	Estimated Total Cost	Costs to End of F.Y. 1951	1952 F.Y. Funds	Funds Required by Fiscal Years						Total Est. Costs 6 Yr. Program 1953-1958	Funds Reqd after F.Y. 1958
				1953	1954	1955	1956	1957	1958		
DEPARTMENT OF THE INTERIOR (Contd)											
Fish and Wildlife Service											
Management of Fish and Wildlife Resources											
Administration of Fish & Game Laws			5	5	4	9	9	9	7	37	
Mammal and Bird Reservations							26	27	27	80	
Control of Predatory Animals and Injurious Rodents			3	3	3	4	4	4	4	22	
Investigations of Fish and Wildlife Resources											
Research on Fish and Fisheries				15	12	9	9	9	9	63	
Research on Birds and Mammals			6	6	6	6	7	7	7	39	
Construction											
National Wildlife Facilities							15	16	16	47	
Federal Aid in Wildlife Restoration			80	79	79	79	79	80	80	476	
Federal Aid to Sportfishing			19	19	19	19	19	19	20	115	
Regional Office Administration			1	1	1	1	2	2	2	9	
River Basin Studies											
Cooperation with Corps of Engineers		49	7	5	5	5	5	5	4	29	
Cooperation with Bureau of Reclamation		1									
Basin-Wide Studies		30	3	7	13	13	6	10	5	54	
Subtotal		80	124	140	144	141	178	187	181	971	
Bureau of Land Management											
Land Classification and Admin. Service (Also Missouri)	4			1	1		1			3	1

KANSAS

SIX YEAR PROGRAM FOR MISSOURI RIVER BASIN prepared by MISSOURI BASIN INTER-AGENCY COMMITTEE IN THOUSANDS OF DOLLARS

Feature or Project	Estimated Total Cost	Costs to End of F.Y. 1951	1952 F.Y. Funds	Funds Required by Fiscal Years						Total Est. Costs 6 Yr. Program 1953-1958	Funds Reqd after F.Y. 1958
				1953	1954	1955	1956	1957	1958		
STATE OF KANSAS											
Agricultural Extension Service (t)			470	599	643	687	698	794	794	4,215	
Agricultural Experiment Stations (t)			115	115	189	189	189	189	189	1,060	
Game, Fish, Forestation and Parks			150	150	150	150	150	150	150	900	
Geological Investigations											
Topographic Mapping			14	14	14	14	14	14	14	84	
Industrial Minerals			30	30	30	32	32	32	32	188	
Ground Water			16	17	17	18	18	18	18	106	
Mineral Fuels			22	22	23	23	23	23	23	137	
Basic Geology			16	17	18	18	18	17	17	102	
Adm. Land and Water Resource Development			54	54	55	55	55	55	55	329	
Public Health											
State Funds			74	74	74	74	74	74	74	444	
Federal Grants-in-Aid			12	12	12	12	12	12	12	72	
Subtotal			973	1,104	1,224	1,271	1,282	1,378	1,378	7,637	
State Government Subdivisions											
Municipal Pollution Abatement				2,000	600	2,800	200	200	200	6,000	7,000
Flood Control	5,261	2,664	425	560	387	275	200	200	100	1,722	450
Watershed Treatment Works (p)	48,561			53	175	193	486	742	1,047	2,696	45,865
Subtotal	53,822	2,664	425	2,613	1,162	3,268	886	1,142	1,347	10,418	53,315
Subtotal - State of Kansas	(e) 53,822	2,664	1,398	3,717	2,386	4,539	2,168	2,520	2,725	18,055	53,315

KANSAS

SIX YEAR PROGRAM FOR MISSOURI RIVER BASIN prepared by MISSOURI BASIN INTER-AGENCY COMMITTEE IN THOUSANDS OF DOLLARS

Feature or Project	Estimated Total Cost	Costs to End of F.Y. 1951	1952 F.Y. Funds	Funds Required by Fiscal Years						Total Est. Costs 6 Yr. Program 1953-1958	Funds Req'd after F.Y. 1958
				1953	1954	1955	1956	1957	1958		
CORPS OF ENGINEERS											
Missouri River Agricultural Levees	13,200	966	235	1,000	1,500	2,200	3,000	2,200	2,099	11,999	
Osage Basin	50,000										50,000
Kansas Basin	91,100										91,100
Minor Tributaries of Missouri River	5,461										5,461
Milford Reservoir, Republican River, Kansas	35,600		150	1,500	3,000	5,000	8,000	10,000	7,950	35,450	
Marysville, Big Blue River, Kansas	310		20	200	90					290	
Abilene, Smoky Hill River	400		40	200	160					360	
Ferry Reservoir, Delaware River	16,376		200	1,000	4,500	5,000	5,676			16,176	
Melvorn Reservoir, Marais des Cymes River	18,200		300	1,500	5,000	6,000	4,000	1,400		17,900	
Kanopolis Reservoir	12,167	11,898	175	94						94	
Kansas Citys (Also Missouri)	41,805	24,289	10,528	4,000	2,988					6,988	
Tuttle Creek Reservoir	79,132	213	5,000	10,500	17,000	20,000	20,000	6,419		73,919	
Pioneer Reservoir (Colorado & Kansas)	17,358	93	88								17,177
Examinations and Surveys	380	250		50	20					70	60
Topeka, Kansas	2,649	738	70	1,000	841					1,841	
Salina, Smoky Hill River, Kansas	1,235		75	750	410					1,160	
Subtotal - Corps of Engineers	385,373	38,447	16,881	21,794	35,509	38,200	40,676	20,019	10,049	166,247	163,798
DEPARTMENT OF AGRICULTURE											
Program of Conservation & Improvement Measures for Grassland and Cropland	166,549	4,484	2,191	2,691	3,291	4,166	7,080	7,665	8,448	33,341	126,533
Program for Forest and Forest Range Lands	11,276	29	30	130	380	400	460	311	345	2,026	9,191
Program for Stabilizing Measures for Small Watercourses	138,745			150	500	550	1,390	2,120	2,990	7,700	131,045
Program in Aid of Irrigation	6,516	56	34	34	34	34	41	59	77	279	6,147

KANSAS

SIX YEAR PROGRAM FOR MISSOURI RIVER BASIN prepared by MISSOURI BASIN INTER-AGENCY COMMITTEE IN THOUSANDS OF DOLLARS

Feature or Project	Estimated Total Cost	Costs to End of F.Y. 1951	1952 F.Y. Funds	Funds Required by Fiscal Years						Total Est. Costs 6 Yr. Program 1953-1958	Funds Reqd after F.Y. 1958
				1953	1954	1955	1956	1957	1958		
DEPARTMENT OF THE INTERIOR (Contd)											
U. S. Geological Survey											
Topographic Surveys and Mapping			120	230	220	220	240	250	275	1,435	
Geologic and Mineral Resource Surveys and Mapping			59	112	111	120	135	136	136	750	
Water Resources Investigations			97	230	255	264	278	289	290	1,606	
Classification of Lands			3	4	4	4	4	4	4	24	
Supervision of Mining and Oil and Gas Leases			9	10	10	12	12	14	14	72	
Subtotal			288	586	600	620	669	693	719	3,887	
Fish and Wildlife Service											
Management of Fish and Wildlife Resources											
Administration of Fish & Game Laws			4	4	4	5	4	4	4	25	
Propagation and Distribution of Food Fishes			11	11	12	12	13	13	13	74	
Mammal & Bird Reservations			1	4	5	5	5	5	5	29	
Control of Predatory Animals & Injurious Rodents				10	20	20	30	20	31	141	
Investigations of Fish and Wildlife Resources											
Research on Fish and Fisheries				10	8	8	9	9	9	53	
Construction											
Fish Facilities			5								
National Wildlife Facilities				32	31	20	15	5	5	108	
Federal Aid in Wildlife Restoration			107	107	107	107	107	107	108	643	
Federal Aid to Sportfishing			25	25	25	25	25	26	26	152	
Regional Office Administration			5	6	6	6	6	6	5	35	

KANSAS

SIX YEAR PROGRAM FOR MISSOURI RIVER BASIN prepared by MISSOURI BASIN INTER-AGENCY COMMITTEE
IN THOUSANDS OF DOLLARS

Feature or Project	Estimated Total Cost	Costs to End of F.Y. 1951	1952 F.Y. Funds	Funds Required by Fiscal Years						Total Est. Costs 6 Yr. Program 1953-1958	Funds Req'd after F.Y. 1958
				1953	1954	1955	1956	1957	1958		
DEPARTMENT OF THE INTERIOR (Contd)											
Fish and Wildlife Service (Contd)											
River-Basin Studies											
Cooperation with Corps of Engineers		79	10	5	5	5	5	5	5	30	
Cooperation with Bureau of Reclamation		73	21	28	30	30	31	33	30	182	
Cooperation with U.S. Dept. of Agriculture											
Basin-Wide Studies		60	16	21	23	24	9	18	7	102	
Subtotal		212	205	263	276	267	259	261	248	1,574	
Bureau of Mines											
Fuels											
Coal (q)				5	5	5	5			20	
Petroleum and Gas				10	10	10	13	13	13	69	
Minerals and Metals											
Nonmetallic Minerals			6	6	6	6	6	6	6	36	
Health and Safety			10	10	10	10	10	10	10	60	
Administration			3	3	3	3	3	3	3	18	
Subtotal			19	34	34	34	37	32	32	203	
Bureau of Land Management											
Lease of Lands and Land Classification	2	2	1	1	1		1			3	
Cadastral Surveys											
Regular Program			2	1	1	1	1	1	1	6	
Special MRE Program		44	15	15	14	14	17	20	20	100	
Administrative Services				1		1				2	
Subtotal	2	46	18	18	16	16	19	21	21	111	

KANSAS

SIX YEAR PROGRAM FOR MISSOURI RIVER BASIN prepared by MISSOURI BASIN INTER-AGENCY COMMITTEE IN THOUSANDS OF DOLLARS

Feature or Project	Estimated Total Cost	Costs to End of F.Y. 1951	1952 F.Y. Funds	Funds Required by Fiscal Years						Total Est. Costs 6 Yr. Program 1953-1958	Funds Req'd after F.Y. 1958
				1953	1954	1955	1956	1957	1958		
DEPARTMENT OF THE INTERIOR (Continued)											
National Park Service											
Activities with Program -- Bureau of Reclamation											
Planning and Investigation	203	57	12	16	16	16	16	16	14	94	40
Construction (r)	(531)	(4)	(21)	(44)	(80)	(13)	(29)	(35)		(201)	(305)
Construction Planning and Consultant Services	71			5	12	1	4	4		26	45
Historical & Archeological Surveys and Salvage	53	8	5	10	10	2	3	2	3	30	10
Activities with Program -- Corps of Engineers											
Planning and Advisory Services	6	2		1		1	1	1		4	
Historical & Archeological Surveys and Salvage	8	8									
Basin-Wide Survey	82	1	2	8	28	22	9	6	6	79	
Development and Management	30			4	5	4	4	4	4	25	5
Smithsonian Institution											
Activities with Program -- Bureau of Reclamation											
Investigations	28	6	2	2	3	2	3	2	3	15	5
Excavations	5										5
Activities with Program -- Corps of Engineers											
Investigations	16	2	4								10
Subtotal	502	84	25	46	74	48	40	35	30	273	120
Subtotal - Dept. of the Interior	158,394	15,090	1,160	3,413	7,850	8,460	8,117	10,018	8,837	46,695	102,010
TOTAL - STATE OF KANSAS	937,871	61,430	22,078	32,592	51,237	57,762	61,549	44,179	35,009	282,328	603,151

MINNESOTA

SIX YEAR PROGRAM FOR MISSOURI RIVER BASIN prepared by MISSOURI BASIN INTER-AGENCY COMMITTEE IN THOUSANDS OF DOLLARS

Feature or Project	Estimated Total Cost	Costs to End of F.Y. 1951	1952 F.Y. Funds	Funds Required by Fiscal Years						Total Est. Costs 6 Yr. Program 1953-1958	Funds Req'd after F.Y. 1958
				1953	1954	1955	1956	1957	1958		
DEPARTMENT OF THE INTERIOR (Continued)											
Fish and Wildlife Service											
Management of Fish & Wildlife Resources;											
Adm. of Fish & Game Laws			6	6	8	6	7	8	7	42	
Mammal & Bird Reservations			50	53	52	77	78	78	78	416	
Control of Predatory Animals and Inj. Rodents			3	3		4	4	4		23	
Investigation of Fish and Wildlife Resources;											
Research on Fish & Fisheries				35	40	16	16	16	16	139	
Construction:											
Nat. Wildlife Facilities			25		10	21	21	11	11	74	
Federal Aid in Wildlife Restoration			90	89	90	90	90	90	90	539	
Federal Aid to Sportfishing			28	27	28	28	28	28	28	167	
Regional Office Adm.			2	1	1	2	2	2	2	10	
Subtotal			204	214	233	244	246	237	236	1,410	
Bureau of Mines											
Minerals and Metals											
Nonmetallic Minerals				2	2	2	2	2	2	12	
Bureau of Land Management											
Land Classification and Resources Inventory											
Regular Program	12		2	2	2	1	1	1	1	8	2
Special MRE Program	10			3	3	3	1			10	
Cadastral Surveys											
Regular Program	21		1	2	1	2	1	2	1	9	11

MISSOURI
SIX YEAR PROGRAM FOR MISSOURI RIVER BASIN prepared by MISSOURI BASIN INTER-AGENCY COMMITTEE
IN THOUSANDS OF DOLLARS

Feature or Project	Estimated Total Cost	Costs to End of F.Y. 1951	1952 F.Y. Funds	Funds Required by Fiscal Years						Total Est. Costs 6 Yr. Program 1953-1958	Funds Req'd after F.Y. 1958
				1953	1954	1955	1956	1957	1958		
STATE OF MISSOURI											
Agricultural Extension			208	208	208	208	208	208	208	1,248	
Agricultural Research			168	168	168	168	168	268	268	1,208	
Studies and Investigations			15	15	15	15	15	15	15	90	
Game, Fish and Forestation (t)			1,169	1,169	1,169	1,169	1,169	1,169	1,169	7,014	
Parks			247	247	255	255	260	260	265	1,542	
Geological Investigations and Topographic Mapping			197	200	200	200	200	200	200	1,200	
Adm. Land and Water Resources			30	30	30	30	30	30	30	180	
Public Health, Sanitation & Pollution			68	68	68	70	70	75	75	426	
Recreation			66	66	66	66	66	66	66	396	
Subtotal			2,168	2,171	2,159	2,181	2,186	2,291	2,196	13,304	
State Government Subdivisions											
County Contribution to Extension Work			288	288	288	288	288	288	288	1,728	
Municipal Sewage Treatment (u)			200	600	1,000	1,500	1,200	1,200	1,200	6,700	
Flood Control	9,006	135	160	345	366	400	350	600	100	2,161	5,650
Watershed Treatment Works (p)	40,454			35	210	225	382	582	821	2,255	38,199
Subtotal	49,460	135	648	1,268	1,864	2,413	2,220	2,670	2,409	12,844	43,849
Federal Grants-in-Aid											
Agricultural Extension			468	468	468	468	468	500	500	2,872	
Agricultural Research			199	199	199	199	199	400	450	1,646	
Public Health			110	110	110	110	110	150	150	740	
Subtotal			777	777	777	777	777	1,050	1,100	5,258	
Subtotal - State of Missouri	(c) 49,460	135	3,593	4,216	4,820	5,371	5,183	6,011	5,805	31,406	43,849

MISSOURI

SIX YEAR PROGRAM FOR MISSOURI RIVER BASIN prepared by MISSOURI BASIN INTER-AGENCY COMMITTEE
IN THOUSANDS OF DOLLARS

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MISSOURI

SIX YEAR PROGRAM FOR MISSOURI RIVER BASIN prepared by MISSOURI BASIN INTER-AGENCY COMMITTEE
IN THOUSANDS OF DOLLARS

Feature or Project	Estimated Total Cost	Costs to End of F.Y. 1951	1952 F.Y. Funds	Funds Required by Fiscal Years						Total Est. Costs 6 Yr. Program 1953-1958	Funds Req'd after F.Y. 1958
				1953	1954	1955	1956	1957	1958		
CORPS OF ENGINEERS											
Chariton River	2,740	750	292	1,200	498					1,698	
Missouri River (Kansas City to Mouth)	115,713	88,481	2,956	8,500	4,000	4,000	4,000	3,000	776	24,276	
Pomme de Terre Reservoir	21,922	252	200	2,500	7,000	7,700	4,270			21,470	
Missouri River Agricultural Levees	88,000	10,550	2,341	3,000	4,500	4,700	5,000	7,300	8,021	32,521	42,588
Osage River Basin	159,800		215	2,000	5,000	10,000	15,000	20,000	25,000	77,000	(cc) 82,585
Gasconade River Basin	61,299	17									61,282
Grand River Basin	181,991										181,991
Minor Tributaries of the Missouri River	48,400										48,400
Preliminary Examination and Surveys	1,500	700		100	100	50				250	550
Kansas Citys (See Kansas)											
Osage River Lock and Dam	658	658									
Gasconade River	139	139									
Subtotal - Corps of Engineers	682,162	101,547	6,004	17,300	21,098	26,450	28,270	30,300	33,797	157,215	417,396
DEPARTMENT OF AGRICULTURE											
Program of Conservation and Improvement Measures for Grassland and Cropland	166,549	6,760	3,857	4,457	4,957	5,166	7,081	7,665	8,449	37,775	118,157
Program for Forest and Forest Range Lands	31,576	257	133	383	633	803	1,014	1,192	1,312	5,337	25,849
Program for Stabilizing Measures for Small Watercourses	115,583			100	600	642	1,092	1,664	2,346	6,444	109,139
Program to Improve Drainage on Agricultural Lands	8,624	523	299	299	399	500	537	651	695	3,081	4,721
Program of Soil Surveys and Land Classification	1,400	8	8	20	50	50	65	65	65	315	1,069

MISSOURI

SIX YEAR PROGRAM FOR MISSOURI RIVER BASIN prepared by MISSOURI BASIN INTER-AGENCY COMMITTEE
IN THOUSANDS OF DOLLARS

Feature or Project	Estimated Total Cost	Costs to End of F.Y. 1951	1952 F.Y. Funds	Funds Required by Fiscal Years						Total Est. Costs 6 Yr. Program 1953-1958	Funds Req'd after F.Y. 1958
				1953	1954	1955	1956	1957	1958		
DEPARTMENT OF AGRICULTURE (Contd)											
Program of Research and Investigation	3,078	68	29	75	122	268	387	322	352	1,526	1,455
Program of Extension Education	10,213			60	70	85	167	209	257	848	9,365
Rural Electrification (Special Studies only)	18				18					18	
Subtotal - Dept. of Agriculture	337,041	7,616	4,326	5,394	6,849	7,514	10,343	11,768	13,476	55,344	269,755
DEPARTMENT OF THE INTERIOR											
U. S. Geological Survey											
Topographic Surveys and Mapping			160	270	255	235	270	300	350	1,680	
Water Resources Investigations			32	98	100	114	162	194	208	876	
Supervision of Mining and Oil and Gas Leases			3	4	5	5	5	5	5	29	
Subtotal			195	372	360	354	437	499	563	2,585	
Fish and Wildlife Service											
Management of Fish and Wildlife Resources											
Administration of Fish & Game Laws			13	12	16	13	14	17	14	86	
Mammal and Bird Reservations			91	44	53	79	79	78	79	412	
Control of Predatory Animals and Injurious Rodents			6	7	7	7	7	7	8	45	
Investigations of Fish and Wildlife Resources											
Research on Fish and Fisheries				125	80	62	62	63	63	455	
Research on Birds and Mammals			6	6	6	6	6	7	7	38	
Construction											
National Wildlife Facilities			60	81	21	31	32	21	21	207	
Federal Aid in Wildlife Restoration			146	146	146	146	146	146	146	876	
Federal Aid to Sportfishing			45	44	45	45	45	45	45	269	

SIX YEAR PROGRAM FOR MISSOURI RIVER BASIN prepared by MISSOURI BASIN INTER-AGENCY COMMITTEE
IN THOUSANDS OF DOLLARS

MISSOURI 31

MONTANA

SIX YEAR PROGRAM FOR MISSOURI RIVER BASIN prepared by MISSOURI BASIN INTER-AGENCY COMMITTEE IN THOUSANDS OF DOLLARS

Feature or Project	Estimated Total Cost	Costs to End of F.Y. 1951	1952 F.Y. Funds	Funds Required by Fiscal Years						Total Est. Costs 6 Yr. Program 1953-1958	Funds Req'd after F.Y. 1958
				1953	1954	1955	1956	1957	1958		
STATE OF MONTANA											
State Soil Conservation Committee			1	1	1	1	1	1	1	6	
State Forester & State Forestry Board			5	6	6	6	5	6	5	34	
State Water Conservation Board			250	250	600	600	600	600	600	3,250	
Department of Fish and Game		656	650	700	700	700	700	700	700	4,200	
Montana Extension Service			239	279	302	302	302	302	302	1,739	
Montana Agricultural Experiment Station			620	993	1,030	1,010	1,010	1,010	1,010	6,063	
State Board of Health											
Water Pollution Control			4	4	9	9	13	13	13	61	
Public Water Supplies			4	8	8	8	8	8	8	40	
Mosquito Control			4	4	9	8	8	8	8	41	
Construction Camp & Recreational Area Sanitation			1	9	9	8	5	8	8	31	
Subtotal		656	1,778	2,243	2,663	2,645	2,652	2,656	2,656	15,515	
Local Governmental Subdivisions											
Municipal Sewage Treatment				370	370	1,000	370	370	370	2,850	1,590
Flood Control	518	20		70	90	54	44	60	80	398	100
Watershed Treatment Works (p)	28,151				35	138	278	424	599	1,474	26,677
Subtotal	28,669	20		440	495	1,192	692	854	1,049	4,722	28,367
Federal Grants-in-Aid for Public Health			18	15	15	15	15	15	15	90	
Subtotal - State of Montana	(c) 28,669	676	1,796	2,698	3,173	3,852	3,359	3,525	3,720	20,327	28,367
PUBLIC HEALTH SERVICE											
Water Pollution Control			8	11	11	15	15	18	18	88	
Mosquito Control Investigations			6	10	10	15	15	15	15	80	
Subtotal - Public Health Service			14	21	21	30	30	33	33	168	

MONTANA

SIX YEAR PROGRAM FOR MISSOURI RIVER BASIN prepared by MISSOURI BASIN INTER-AGENCY COMMITTEE IN THOUSANDS OF DOLLARS

Feature or Project	Estimated Total Cost	Costs to End of F.Y. 1951	1952 F.Y. Funds	Funds Required by Fiscal Years						Total Est. Costs 6 Yr. Program 1953-1958	Funds Reqd after F.Y. 1958
				1953	1954	1955	1956	1957	1958		
CORPS OF ENGINEERS (Continued)											
Preliminary Examination & Surveys	250	100		30	20	10				60	90
Harlem, Milk River	76	5					71			71	
Billings, Yellowstone River	3,389					70	124	600	1,400	2,194	1,195
Forsyth	265	265									
Tributaries of Missouri River	1,800										1,800
Glasgow	17	17									
Subtotal - Corps of Engineers	166,032	131,132	2,277	1,568	7,835	10,606	7,411	600	1,400	29,420	3,203
DEPARTMENT OF AGRICULTURE											
Program of Conservation & Improvement Measures for Grassland and Cropland	107,066	3,778	1,995	1,995	2,245	2,821	4,552	4,927	5,431	21,971	79,322
Program for Forest and Forest Range Lands	169,500	2,110	1,165	1,165	1,615	3,740	5,127	6,441	7,062	25,150	141,075
Program for Stabilizing Measures for Small Watercourses	80,432				100	344	792	1,210	1,710	4,156	76,276
Program in Aid of Irrigation	47,436	974	421	421	471	805	994	1,494	1,866	6,051	39,990
Program of Soil Surveys and Land Classification	5,800	30	20	35	100	200	260	260	260	1,115	4,635
Program of Research and Investigation	7,695	165	99	186	403	530	868	853	855	3,672	3,759
Program of Extension Education	7,810				20	106	143	167	206	642	7,168
Rural Electrification (Special Studies Only)	15				15					15	
Subtotal - Dept. of Agriculture	425,754	7,057	3,700	3,802	4,969	8,546	12,736	15,329	17,390	62,772	352,225
DEPARTMENT OF THE INTERIOR											
Bureau of Reclamation - Region 6											
Canyon Ferry Unit	29,491	14,432	8,906	4,429	893	831				6,153	
Charley Creek Unit	249	17	20	135	46					181	31

MONTANA

SIX YEAR PROGRAM FOR MISSOURI RIVER BASIN prepared by MISSOURI BASIN INTER-AGENCY COMMITTEE
IN THOUSANDS OF DOLLARS

Feature or Project	Estimated Total Cost	Costs to End of F.Y. 1951	1952 F.Y. Funds	Funds Required by Fiscal Years						Total Est. Costs 6 Yr. Program 1953-1958	Funds Req'd after F.Y. 1958
				1953	1954	1955	1956	1957	1958		
DEPARTMENT OF THE INTERIOR (Continued)											
Bureau of Reclamation - Region 6 (Contd)											
Colgate Unit	449	45	25	15	190	115	5	30	24	379	
Crow Creek Unit	1,553	121	140	500	742	22	10	10	8	1,292	
East Bench Unit	20,130	281	200	90	150	410	3,490	7,190	4,790	16,120	3,529
Elm Coulee Unit	495	41	18	17	20	200	150	5	20	412	24
Hardin Unit	11,892	380	201	236	150	150	100	75	50	761	10,550
Helena Valley Unit	4,588	190	70	100	620	2,040	1,200	215	91	4,266	62
Lower Marias Unit	60,622	2,337	506	4,200	7,273	11,414	11,725	7,025	5,730	47,367	10,412
Marsh Unit	1,002	100	2	2						2	898
Missouri Diversion Unit	101,743	1,301	200	5,000	9,150	6,350	5,650	7,300	15,900	49,350	50,892
Moorhead Unit	25,530	1,621	40	66	3,000	11,000	8,491	1,312		23,869	
Nickwall Unit	779	45	15	385	250					638	81
Sadie Flat Unit	1,992	179	14	2							1,797
Savage Unit	505	471		2	27					29	
Seven Sisters Unit	1,418	73	20	45	250	750	85	6	60	1,196	129
Sidney Unit	601	147	37	260	144	4	9			417	
Stipek Unit	1,616	162	25	50	275	850	95	7	60	1,337	92
Yellowtail Unit	99,290	1,893	381	6,812	18,160	26,527	27,063	12,620	4,616	95,798	1,218
Clarks Fork Division	997	35	40	150	250	202		20	20	642	280
Helena-Great Falls Div.	17,775	41	125	130	193	166	500	3,300	4,020	8,309	9,300
Jefferson Division	20,056	277	148	50	150	100	200	500	2,000	3,000	16,631
Judith Division	6,525	1	1	10	90	90	23			213	6,310
Little Missouri Division	7,871	43	16		47	46	8			101	7,711

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SIX YEAR PROGRAM FOR MISSOURI RIVER BASIN prepared by MISSOURI BASIN INTER-AGENCY COMMITTEE IN THOUSANDS OF DOLLARS

Feature or Project	Estimated Total Cost	Costs to End of F.Y. 1951	1952 F.Y. Funds	Funds Required by Fiscal Years						Total Est. Costs 6 Yr. Program 1953-1958	Funds Req'd after F.Y. 1958
				1953	1954	1955	1956	1957	1958		
DEPARTMENT OF THE INTERIOR (Continued)											
Bureau of Reclamation-Region 6 (Contd.)											
Lower Righorn Division	12,059	25	25		200	200	200	163		763	11,246
Marias Division	143,605	153	31	60	110	110	141		100	521	142,900
Milk Division	13,311	34	2	60	210	209	150	750	3,000	4,379	8,896
Missouri-Souris Division	10,844	275	44	63	135	127	1,018	958	13	2,314	8,211
Montana Pumping Division	2,067	148	87	35	75	110	308	556	558	1,442	390
Musselshell Division	130	2	1	10	105	12				127	
Powder Division	9,160	250	80	30	40	50	75	100	100	395	8,435
Sun-Teton Division	19,580	158	58	75	89		200	300	900	1,564	17,800
Three Forks Division	89,055	672	131	160	195	200	387	500	3,550	4,992	83,260
Tongue Division	6,767	100	136	88	85	85	6	27	40	331	6,300
Transmission Division	22,969	237	430	1,490	767	1,712	2,438	3,797	3,193	13,397	8,905
Yellowstone Division	60,027	291	63	151	290	460	1,067	763	1,403	4,134	55,539
Buffalo Rapids Proj. - 1	2,556	1,830	352	222	152					374	
Buffalo Rapids Proj. - 2	2,082	1,554	95	111	132	123	67			433	
Fort Peck Project	14,776	7,364	1,235	306	384	189	80			959	5,218
Milk River Proj. (Fresno)	2,000	1,826	26								148
Sun River Project	9,671	9,517	41	40	51	22				113	
Milk River Project - R&B	660	294	137	160	69					229	
Sun River Project - R&B	36	13	16	7						7	
Subtotal	838,524	48,976	14,145	25,754	45,159	64,879	64,941	47,529	50,046	298,308	477,095

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SIX YEAR PROGRAM FOR MISSOURI RIVER BASIN prepared by MISSOURI BASIN INTER-AGENCY COMMITTEE IN THOUSANDS OF DOLLARS

Feature or Project	Estimated Total Cost	Costs to End of F.Y. 1951	1952 F.Y. Funds	Funds Required by Fiscal Years						Total Est. Costs 6 Yr. Program 1953-1958	Funds Req'd after F.Y. 1958
				1953	1954	1955	1956	1957	1958		
DEPARTMENT OF THE INTERIOR (Continued)											
Fish and Wildlife Service (Continued)											
River-Basin Studies:											
Cooperation with Corps of Engineers		9	3	7	7	6	6	7	6	39	
Cooperation with Bureau of Recl.		187	33	58	61	61	61	64	59	364	
Basin-Wide Studies		174	20	24	23	25	8	19	7	106	
Special Investigations		10									
Subtotal		380	1,144	2,334	1,293	1,154	1,032	1,049	1,027	7,899	
Bureau of Mines											
Fuels											
Coal (q)			2	16	16	16	16	21	26	111	
Petroleum and gas			2	57	50	50	50	50	50	307	
Minerals and metals											
Ferrous metals			4	6	6	7	7	7	7	40	
Nonferrous metals			10	12	12	13	13	13	14	77	
Nonmetallic minerals			17	21	21	21	21	21	22	127	
Control of coal deposit fires				10	10	10	10	10	10	60	
Health and Safety			10	15	15	15	15	15	15	90	
Administration			5	5	5	5	6	6	6	33	
Subtotal			50	142	135	137	138	143	150	845	
Bureau of Land Management											
Management of Lands & Resources:											
Grazing			100	145	137	125	125	125	124	761	
Forestry			13	10	11	10	9	9	9	58	

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SIX YEAR PROGRAM FOR MISSOURI RIVER BASIN prepared by MISSOURI BASIN INTER-AGENCY COMMITTEE
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IN THOUSANDS OF DOLLARS

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SIX YEAR PROGRAM FOR MISSOURI RIVER BASIN prepared by MISSOURI BASIN INTER-AGENCY COMMITTEE IN THOUSANDS OF DOLLARS

Feature or Project	Estimated Total Cost	Costs to End of F.Y. 1951	1952 F.Y. Funds	Funds Required by Fiscal Years						Total Est. Costs 6 Yr. Program 1953-1958	Funds Reqd after F.Y. 1958
				1953	1954	1955	1956	1957	1958		
STATE OF NEBRASKA (Contd)											
Federal Grant-in-Aid (Contd)											
Stream Pollution Work, Sanitation			15	15	20	20	15	15	15	100	
Subtotal			1,153	1,655	1,387	1,391	1,396	1,396	1,396	8,621	
Subtotal - State of Nebraska	100,686 ^(c)	1,112	3,545	5,740	7,551	9,019	11,437	7,205	7,612	48,564	97,263
Public Power Program (bb)			5,770	4,246	12,757	4,139	2,700	2,885	2,695	29,422	
PUBLIC HEALTH SERVICE											
Water Pollution Control			12	17	17	21	21	25	25	126	
Mosquito Control Investigations			10	10	20	20	20	20	20	110	
Subtotal - Public Health Service			22	27	37	41	41	45	45	236	
FEDERAL POWER COMMISSION											
River Basin Surveys			11	11	12	13	15	17	17	85	
Power Requirements and Supply Studies			8	8	11	11	12	12	12	65	
Licensed Project Work			4	4	5	5	5	6	6	31	
Subtotal - Federal Power Comm.			23	23	27	29	32	35	35	181	
DEPARTMENT OF COMMERCE											
Coast and Geodetic Survey		81	158	100	66	14	20	10	100	310	
Weather Bureau											
Flood Forecasting and Water Supply Forecasting Service		27	28	35	40	45	50	55	58	283	
Hydroclimatic Network		11	12	22	28	34	40	45	42	211	
Basic Data Processing and Analysis		7	7	20	27	27	27	27	14	142	

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SIX YEAR PROGRAM FOR MISSOURI RIVER BASIN prepared by MISSOURI BASIN INTER-AGENCY COMMITTEE IN THOUSANDS OF DOLLARS

Feature or Project	Estimated Total Cost	Costs to End of F.Y. 1951	1952 F.Y. Funds	Funds Required by Fiscal Years						Total Est. Costs 6 Yr. Program 1953-1958	Funds Req'd after F.Y. 1958
				1953	1954	1955	1956	1957	1958		
CORPS OF ENGINEERS (Contd)											
Missouri River, Sioux City to Kansas City	179,068	100,683	5,873	13,000	10,000	10,000	10,000	11,000	11,000	65,000	7,512
Kansas Basin	630										630
Tributaries of the Missouri River	69,309										69,309
Red Willow Reservoir	11,075										11,075
Subtotal - Corps of Engineers	406,660	151,045	17,122	19,615	34,653	36,027	26,709	20,223	11,575	148,802	89,691
DEPARTMENT OF AGRICULTURE											
Prog. of Conservation & Improvement Measures for Grassland and Cropland	190,341	10,847	5,597	5,997	6,797	7,404	8,092	8,760	9,655	46,705	127,192
Program for Forest and Forest Range Lands	33,736	166	103	133	353	750	961	1,139	1,259	4,595	28,872
Program for Stabilizing Measures for Small Watercourses	279,502	81	90	290	990	1,077	2,500	4,140	5,460	14,457	264,874
Program in Aid of Irrigation	51,115	588	264	264	264	505	715	1,470	2,295	5,513	44,750
Program to Improve Drainage on Agriculture Lands	4,611	166	74	74	74	108	194	276	347	1,073	3,298
Program of Soil Surveys and Land Classification	2,270	73	41	62	90	90	100	100	100	542	1,614
Program of Research and Investigation	6,670	174	82	249	501	554	943	751	729	3,727	2,687
Program of Extension Education	9,012			40	85	106	179	209	257	876	8,136
Supporting Credit Program (Administrative only)											
Rural Electrification (Special Studies only)	25			25						25	
Subtotal - Dept. of Agriculture	577,282	12,095	6,251	7,134	9,154	10,594	13,684	16,845	20,102	77,513	481,423

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SIX YEAR PROGRAM FOR MISSOURI RIVER BASIN prepared by MISSOURI BASIN INTER-AGENCY COMMITTEE
IN THOUSANDS OF DOLLARS

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SIX YEAR PROGRAM FOR MISSOURI RIVER BASIN prepared by MISSOURI BASIN INTER-AGENCY COMMITTEE IN THOUSANDS OF DOLLARS

Feature or Project	Estimated Total Cost	Costs to End of F.Y. 1951	1952 F.Y. Funds	Funds Required by Fiscal Years						Total Est. Costs 6 Yr. Program 1953-1958	Funds Req'd after F.Y. 1958
				1953	1954	1955	1956	1957	1958		
DEPARTMENT OF THE INTERIOR (Continued)											
Bureau of Reclamation - Region 7 (Contd)											
Upper Niobrara Division	2,700										2,700
Valentine Division	17,286										17,286
Subtotal	607,695	67,468	13,526	11,662	12,270	14,955	22,006	32,208	24,232	117,333	409,368
U. S. Geological Survey											
Topographic Surveys and Mapping			400	700	700	700	700	600	600	4,000	
Geologic and Mineral Resource Surveys and Mapping			40	76	75	82	92	93	93	511	
Water Resources Investigations			284	657	723	754	708	785	780	4,477	
Classification of Lands			1	2						2	
Supervision of Mining and Oil and Gas Leases			3	5	5	5	5	7	7	34	
Subtotal			728	1,440	1,513	1,541	1,565	1,485	1,480	9,024	
Fish and Wildlife Service											
Management of Fish and Wildlife Resources											
Adm. of Fish and Game Laws			19	18	28	23	25	31	25	150	
Propagation and Distribution of Food Fishes			27	40	60	60	65	60	60	345	
Mammal and Bird Reservations			68	94	107	107	107	107	107	629	
Control of Predatory Animals and Injurious Rodents			13	29	24	24	18	17	15	127	
Investigations of Fish and Wildlife Resources											
Research on Fish and Fisheries				20	20	12	12	13	13	90	
Construction											
Fish Facilities			33	200	180	100	50	25	20	575	
Nat. Wildlife Facilities				11	26	26	16	16	16	111	
Federal Aid in Wildlife Restoration			247	247	247	247	248	248	248	1,485	

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IN THOUSANDS OF DOLLARS

Feature or Project	Estimated Total Cost	Costs to End of F.Y. 1951	1952 F.Y. Funds	Funds Required by Fiscal Years						Total Est. Costs 6 Yr. Program 1953-1958	Funds Reqd after F.Y. 1958
				1953	1954	1955	1956	1957	1958		
DEPARTMENT OF THE INTERIOR (Contd)											
Bureau of Land Management											
Management of Lands and Resources											
Grazing			1	1						1	
Lease and Disposal of Lands and Resources			3	3	3	3	3	2	2	16	
Land Classification and Resource Inventory											
Regular Program			1	5	5	3	2	2	1	18	
Special MRB Program	13	13									
Cadastral Surveys											
Regular Program			2	1	1	1	1	1	1	6	
Special MRB Program		115	62	145	150	70	85	100	100	650	
Administrative Services			1	2	2	1	1	1	1	8	
Subtotal	13	128	70	157	161	78	92	106	105	699	
Bureau of Indian Affairs											
Health, Education and Welfare			234	350	338	356	356	376	376	2,152	
Resources Management			59	112	114	106	106	106	106	650	
Construction			16	52	67	89	123	86	92	509	
General Admn. Expense			19	21	22	22	22	22	22	131	
MRB - Survey and Investigations		1					10			10	
Subtotal		1	328	535	541	573	617	590	596	3,452	

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IN THOUSANDS OF DOLLARS

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				1953	1954	1955	1956	1957	1958		
STATE OF NORTH DAKOTA (a)											
Agricultural Experiment Stations		1,009	507	507	600	600	700	700	700	3,807	
Agricultural Extension Work		357	290	235	205	205	205	205	205	1,260	
Highways		1,750	1,000	1,800	1,350	650	500	500	500	5,300	
Game and Fish		698	416	416	416	416	416	416	416	2,496	
Water Commission		1,165	290	290	295	295	300	300	300	1,780	
Soil Conservation		37	20	20	25	25	25	30	30	155	
Agriculture and Labor		354	99	99	99	99	100	100	120	617	
Public Health		35	35	35	35	42	47	50	50	262	
Research Foundation		48	19	19	19	19	19	19	19	114	
Recreational and Parks		85	36	50	60	75	75	75	75	410	
Subtotal		(dd) 5,528	2,712	3,471	3,107	2,426	2,387	2,395	2,415	16,201	
Federal Grant-in-Aid											
Agricultural Experiment Stations		383	100	100	100	100	100	100	100	600	
Public Health		85	36	36	40	44	48	50	50	268	
Subtotal		468	136	136	140	144	148	150	150	868	
Local Subdivision Funds											
Municipal Sewage Treatment			100	250	250	1,000	200	200	200	2,100	
Flood Control	155	60	33								62
Watershed Treatment Works (p)	31,670				17	85	313	476	672	1,563	30,107
Subtotal	31,825	60	133	250	267	1,085	513	676	872	3,663	30,169
Subtotal - North Dakota	31,825	6,056	3,081	3,857	3,514	3,655	3,048	3,221	3,437	20,732	30,169

SIX YEAR PROGRAM FOR MISSOURI RIVER BASIN prepared by MISSOURI BASIN INTER-AGENCY COMMITTEE
IN THOUSANDS OF DOLLARS

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SIX YEAR PROGRAM FOR MISSOURI RIVER

BASIN prepared by MISSOURI BASIN INTER-AGENCY COMMITTEE
IN THOUSANDS OF DOLLARS

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NORTH DAKOTA
SIX YEAR PROGRAM FOR MISSOURI RIVER BASIN prepared by MISSOURI BASIN INTER-AGENCY COMMITTEE
IN THOUSANDS OF DOLLARS

Feature or Project	Estimated Total Cost	Costs to End of F.Y. 1951	1952 F.Y. Funds	Funds Required by Fiscal Years						Total Est. Costs 6 Yr. Program 1953-1958	Funds Req'd after F.Y. 1958
				1953	1954	1955	1956	1957	1958		
DEPARTMENT OF THE INTERIOR (Contd)											
U. S. Geological Survey											
Topographic Surveys and Mapping			250	400	400	300	315	330	345	2,090	
Geologic and Mineral Resource Surveys and Mapping			113	216	213	230	259	262	262	1,442	
Water Resources Investigations			98	226	254	259	259	261	258	1,517	
Classification of Lands			5	4	4	4				12	
Supervision of Mining, Oil & Gas Leases			5	5	5	5	5	5	5	31	
Subtotal			471	851	876	798	838	859	870	5,092	
Fish & Wildlife Service											
Management of Fish and Wildlife Resources											
Adm. of Fish and Game Laws			19	19	30	25	27	33	28	162	
Propagation and Distribution of Food Fishes			14	15	16	17	18	20	30	116	
Mammal & Bird Reservations			273	156	183	209	209	208	208	1,173	
Control of Predatory Animals and Injurious Rodents			14	22	19	19	16	16	15	107	
Investigations of Fish and Wildlife Resources											
Research on Fish and Fisheries				40	37	23	23	22	22	167	
Construction											
Fish Facilities					100	75	75	10	10	270	
Nat. Wildlife Facilities			14	120	52	79	79	52	53	435	
Federal Aid in Wildlife Restoration			186	186	187	187	186	186	186	1,118	
Federal Aid to Sportfishing			30	30	30	30	30	31	31	182	
Regional Office Administration			5	6	6	6	6	6	6	36	

NORTH DAKOTA
SIX YEAR PROGRAM FOR MISSOURI RIVER BASIN prepared by MISSOURI BASIN INTER-AGENCY COMMITTEE
IN THOUSANDS OF DOLLARS

Feature or Project	Estimated Total Cost	Costs to End of F.Y. 1951	1952 F.Y. Funds	Funds Required by Fiscal Years						Total Est. Costs 6 Yr. Program 1953-1958	Funds Req'd after F.Y. 1958
				1953	1954	1955	1956	1957	1958		
DEPARTMENT OF THE INTERIOR (Contd)											
Bureau of Land Management (Contd)											
Resource Development and Rehabilitation											
Soil and Moisture Conservation	31		7	1	7	5	5			24	
Range Improvement			1	1	5	5	5	5	5	26	10
Lease and Disposal of Lands and Resources			7	7	7	7	7	6	6	40	
Land Classification and Resource Inventory											
Regular Program			1	7	7	4	3	3	2	24	
Special MRB Program	33	20	4	6	3					9	
Cadastral Surveys											
Regular Program			2	7	7	14	14	1	1	44	
Special MRB Program		704	15	10	21	20	45	73	73	242	
Administrative Services			3	4	4	4	4	2	2	20	
Subtotal	64	724	43	49	61	60	84	91	90	435	10
Bureau of Indian Affairs											
Health, Education and Welfare			1,593	2,030	2,067	2,117	2,117	2,167	2,167	12,665	
Resources Management			261	827	1,111	1,040	1,207	1,205	1,205	6,595	
Construction			859	4,113	1,157	1,026	859	707	609	8,471	
General Admn. Expense			63	79	83	83	83	83	83	494	
MRB Survey and Investigations		398	67	62	12	13				87	
Subtotal		398	2,843	7,111	4,430	4,279	4,266	4,162	4,064	28,312	

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Feature or Project	Estimated Total Cost	Costs to End of F.Y. 1951	1952 F.Y. Funds	Funds Required by Fiscal Years						Total Est. Costs 6 Yr. Program 1953-1958	Funds Reqd after F.Y. 1958
				1953	1954	1955	1956	1957	1958		
STATE OF SOUTH DAKOTA											
Agricultural Program											
Research (Exp. Stations)			653	653	695	695	767	767	789	4,366	
Extension Service			308	308	321	337	347	360	370	2,043	
State-Wide Services			66	66	78	78	87	87	92	488	
Highways	303	39	88	176						176	
Game, Fish, Forest & Parks	3,300	1,500	880	840	940	940	940	940	940	5,540	
Geological Investigations			75	66	80	80	80	80	80	480	
Administration, Land & Water Resources			47	49	51	55	60	60	65	345	
Public Health, Sanitation & Pollution			27	33	38	39	46	48	50	254	
Studies & Investigations			32	35	30	26	26	26	26	169	
Subtotal	3,603	1,539	2,176	2,240	2,233	2,250	2,353	2,373	2,212	13,861	
State Government Subdivisions											
Relocation County Roads	10			10						10	
Municipal Pollution Abatement	5,055	1,055	481	1,070	216	216	216	216	216	2,150	1,369
Flood Control	5,138	138									5,000
Watershed Treatment Works (p)	31,670				17	85	313	476	672	1,563	30,107
Subtotal	41,873	1,193	481	1,080	233	301	529	692	888	3,723	36,476
Federal Grant-in-Aid											
Extension Service			408	406	406	406	432	432	462	2,544	
Experiment Stations			212	212	213	213	213	215	215	1,281	
Highways	386	50	112	224						224	
Game, Fish & Parks (Pittman-Robertson)			180	180	180	180	180	180	180	1,080	

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IN THOUSANDS OF DOLLARS

Feature or Project	Estimated Total Cost	Costs to End of F.Y. 1951	1952 F.Y. Funds	Funds Required by Fiscal Years						Total Est. Costs 6 Yr. Program 1953-1958	Funds Req'd after F.Y. 1958
				1953	1954	1955	1956	1957	1958		
STATE OF SOUTH DAKOTA (Continued)											
Federal Grant-in-Aid (Continued)											
Public Health & Sanitation			25	23	27	30	38	44	46	208	
Subtotal	386	50	937	1,045	826	829	863	871	903	5,337	
Subtotal - State of South Dakota	45,562	2,782	3,594	4,365	3,292	3,380	3,745	3,936	4,003	22,721	36,476
PUBLIC HEALTH SERVICE											
Water Pollution Control			16	14	14	17	17	20	20	102	
Mosquito Control Investigations			10	10	10	15	15	15	15	80	
Subtotal - Public Health Service			26	24	24	32	32	35	35	182	
FEDERAL POWER COMMISSION											
River Basin Surveys			10	10	11	12	13	15	15	76	
Power Requirements and Supply Studies			7	7	8	9	10	11	11	56	
Licensed Project Work			4	4	4	4	4	5	5	26	
Subtotal - Federal Power Comm.			21	21	23	25	27	31	31	158	
DEPARTMENT OF COMMERCE											
Coast and Geodetic Survey		93	187	160	54	50	65	120	20	469	
Weather Bureau											
Flood forecasting service		12	12	32	40	45	50	46	45	258	
Hydroclimatic network		10	10	17	21	26	30	34	31	159	
Basic data processing and analysis		6	6	18	24	24	24	24	12	126	
Supporting Services		4	4	20	32	32	32	32	32	180	

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				1953	1954	1955	1956	1957	1958		
DEPARTMENT OF COMMERCE (Continued)											
Inland Waterways Corporation (See under Missouri)											
Economic Information, Studies & Surveys		197	134	117	178	178	115	103	104	795	
Subtotal - Dept. of Commerce		322	353	364	349	355	316	359	244	1,987	
CORPS OF ENGINEERS											
Fall River Basin	4,479	1,762	647	427	525	837	181			2,070	
Fort Randall Reservoir	197,300	71,073	16,784	37,500	25,000	13,942				76,442	
Gahe Reservoir	285,500	7,997	5,373	6,230	25,000	37,500	37,500	37,500	37,500	146,230	90,900
Big Bend Reservoir	49,500				150	500	5,000	16,000	16,000	37,650	11,850
Examination and Surveys	800	650		40	40					80	70
Belle Fourche	37	37									
Missouri River	53,000										53,000
Tributaries of Missouri River	50,000										50,000
Subtotal - Corps of Engineers	640,616	81,519	55,804	44,297	50,715	52,780	42,681	53,500	53,500	297,413	205,820
DEPARTMENT OF AGRICULTURE											
Program of Conservation and Improvement Measures for Grassland and Cropland	154,652	9,177	4,721	4,721	4,971	5,297	6,575	7,118	7,846	36,528	104,226
Program for Forest and Forest Range Lands	57,668	1,006	652	652	702	1,564	1,926	2,231	2,438	9,513	46,497
Program for Stabilizing Measures for Small Watercourses	90,486				50	244	895	1,360	1,920	4,469	86,017
Program in Aid of Irrigation	20,784	405	209	209	259	301	343	454	459	2,025	18,145
Program to Improve Drainage on Agricultural Lands	4,472	554	296	296	296	291	328	333	324	1,868	1,754
Program of Soil Surveys and Land Classification	4,200	44	12	68	130	155	190	190	190	923	3,221

SOUTH DAKOTA

SIX YEAR PROGRAM FOR MISSOURI RIVER BASIN prepared by MISSOURI BASIN INTER-AGENCY COMMITTEE
IN THOUSANDS OF DOLLARS

Feature or Project	Estimated Total Cost	Costs to End of F.Y. 1951	1952 F.Y. Funds	Funds Required by Fiscal Years						Total Est. Costs 6 Yr. Program 1953-1958	Funds Req'd after F.Y. 1958
				1953	1954	1955	1956	1957	1958		
DEPARTMENT OF AGRICULTURE (Continued)											
Program of Research and Investigation	6,670	119	62	103	268	428	731	688	718	2,936	3,553
Program of Extension Education Supporting Credit Program (Administrative only)	6,007				20	106	119	139	172	556	5,451
Rural Electrification (Special Studies only)	25			25						25	
Subtotal - Dept. of Agriculture	344,964	11,305	5,952	6,074	6,696	8,386	11,107	12,513	14,067	58,843	268,864
DEPARTMENT OF THE INTERIOR											
Bureau of Reclamation - Region 6											
Angostura Unit	13,439	10,551	1,247	1,175	8	5	4	4	4	1,200	441
Bixby Unit	12,976	1,323	- 90								11,743
Cabe Unit	219,389	2,479	915	1,298	1,894	7,138	11,707	2,919	1,012	25,968	190,027
Rapid Valley Unit	11,972	210	321	2,135	5,263	2,854	1,057	95	27	11,436	5
Shadell Unit	10,675	7,299	136	402	101	7	7	7	5	529	2,711
Bad Division	6,337	1			51	53				104	6,232
Cheyenne Division	7,071	162	33	30	55	61	54		20	220	6,656
Grand Division	13,257	43			22	22	22	19		85	13,129
James Division	5,043	124	203	240	150	150	66	60	60	748	3,968
Moreau Division	21	21	No additional activities planned								
South Dakota Pump. Div.	8,449	67			73	78	82	118	40	391	7,991
White Division	15,235	245	46	43	95	125	200	200	1,900	2,563	12,381
Transmission Division	71,148	4,893	9,259	21,730	19,387	7,492	2,602	1,543	919	53,773	3,223
Belle Fourche Project-R&B	373	269	101	3						3	
Subtotal	395,385	27,687	12,171	27,056	27,104	18,085	15,823	4,965	3,987	97,020	258,507

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IN THOUSANDS OF DOLLARS

Feature or Project	Estimated Total Cost	Costs to End of F.Y. 1951	1952 F.Y. Funds	Funds Required by Fiscal Years						Total Est. Costs 6 Yr. Program 1953-1958	Funds Req'd after F.Y. 1958
				1953	1954	1955	1956	1957	1958		
DEPARTMENT OF THE INTERIOR (Continued)											
U. S. Geological Survey											
Topographic surveys and mapping			325	605	605	505	510	420	430	3,075	
Geologic and mineral resource surveys and mapping			66	126	124	134	151	152	152	839	
Water Resources Investigations			151	353	393	405	418	430	429	2,428	
Classification of Lands			6	6	5	5	3	2	-	21	
Supervision of Mining and Oil and Gas Leases			5	5	5	5	5	5	6	31	
Subtotal			603	1,095	1,132	1,054	1,087	1,009	1,017	6,394	
Fish and Wildlife Service											
Management of fish & wildlife resources:											
Adm. of fish & game laws			20	20	29	25	26	32	27	159	
Propagation & distribution of food fishes			28	35	45	50	53	55	55	293	
Mammal & bird reservations			114	137	66	81	81	81	81	527	
Control of predatory animals & inj. rodents			15	54	48	40	32	29	15	218	
Investigations of fish and wildlife resources:											
Research on fish & fisheries				40	38	23	22	22	23	168	
Construction:											
Fish facilities			100	100	100	25	20	20	10	275	
Nat. wildlife facilities			19		5	16	11	11	10	53	
Federal Aid in Wildlife											
Restoration			231	231	231	231	231	231	231	1,386	
Federal Aid to Sportfishing			40	40	41	40	40	41	41	243	
Regional Office Admin.			6	6	6	6	6	7	7	38	

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 IN THOUSANDS OF DOLLARS

Feature or Project	Estimated Total Cost	Costs to End of F.Y. 1951	1952 F.Y. Funds	Funds Required by Fiscal Years						Total Est. Costs 6 Yr. Program 1953-1958	Funds Req'd after F.Y. 1958
				1953	1954	1955	1956	1957	1958		
DEPARTMENT OF THE INTERIOR (Continued)											
Bureau of Land Management											
Management of Lands & Resources:											
(1) Grazing			2	3	4	3	3	3	3	19	
Resource Development & Rehabilitation											
(1) Soil & Moisture Conservation	70			10	10	10	10	5	5	50	20
(2) Range Improvement			1	4	10	10	10	10	10	54	30
Fire Control											
Lease and Disposal of Lands and Resources			6	6	7	7	7	7	6	40	
Land Classification and Resource Inventory											
(1) Regular Program			2	8	8	4	3	3	3	29	
(2) Special MRB Program	64	34	10	10	10					20	
Cadastral Surveys											
(1) Regular Program		5	4	25	40	30	5	5	1	113	
(2) Special MRB Program		179	62	133	190	145	120	100	100	788	
Administrative Services		5	4	5	6	5	5	4	4	29	
Subtotal	134	213	101	204	285	214	174	133	132	1,142	50
Bureau of Indian Affairs											
Health, Education and Welfare			4,057	4,913	5,127	5,257	5,257	5,387	5,387	31,328	
Resources Management			705	2,469	2,852	2,808	2,826	2,928	2,887	16,770	
Construction			228	1,137	944	567	2,355	1,929	719	7,651	
General Adm. Expense			328	372	390	390	390	390	390	2,322	
MRB-Survey & Investigations		413	137	191	123	94	62			470	
Subtotal		413	5,455	9,082	9,436	9,116	10,890	10,634	9,383	58,561	

SOUTH DAKOTA

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IN THOUSANDS OF DOLLARS

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WYOMING

SIX YEAR PROGRAM FOR MISSOURI RIVER BASIN prepared by MISSOURI BASIN INTER-AGENCY COMMITTEE IN THOUSANDS OF DOLLARS

Feature or Project	Estimated Total Cost	Costs to End of F.Y. 1951	1952 F.Y. Funds	Funds Required by Fiscal Years						Total Est. Costs 6 Yr. Program 1953-1958	Funds Req'd after F.Y. 1958
				1953	1954	1955	1956	1957	1958		
STATE OF WYOMING (w)											
Agricultural Program											
Main Experiment Station			105	105	105	105	105	105	105	630	
State Farms			72	72	72	72	72	72	72	432	
Extension Service			190	190	190	190	190	190	190	1,140	
Studies and Investigations			22	22	22	22	25	25	25	141	
Highway Modification			200	100	70	60	50	50	50	380	
Game, Fish, Forest Fire Protection			870	870	870	870	870	870	870	5,220	
Geological Investigations (Mineral)			7	7	7	7	7	7	7	42	
Administration - Water Resources			35	35	36	36	38	38	38	221	
Stream Gaging and Snow Surveys			26	26	27	27	27	27	27	161	
Underground Water Studies			7	7	8	8	10	10	10	53	
Stream Pollution, Sanitation, etc.			13	14	14	14	14	14	14	84	
Commerce and Industry Commission			58	58	60	60	60	60	60	358	
Natural Resources Board			74	74	75	75	75	75	75	449	
Subtotal			1,679	1,580	1,556	1,546	1,543	1,543	1,543	9,311	
Federal Grant-in-Aid											
Public Health			8	8	8	8	8	8	8	48	
Local Subdivision Fund											
Municipal Pollution Abatement			1,130	230	400	1,000	500	200	200	2,530	630
Flood Control	257			20	40	9	97	91		257	
Watershed Treatment Works (p)	21,113				35	69	208	317	448	1,077	20,036
Subtotal	21,390		1,130	250	475	1,078	805	608	648	3,864	20,666
Subtotal - State of Wyoming	21,390		2,817	1,838	2,039	2,632	2,356	2,159	2,199	13,223	20,666

WYOMING

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Feature or Project	Estimated Total Cost	Costs to End of F.Y. 1951	1952 F.Y. Funds	Funds Required by Fiscal Years						Total Est. Costs 6 Yr. Program 1953-1958	Funds Req'd after F.Y. 1958
				1953	1954	1955	1956	1957	1958		
CORPS OF ENGINEERS											
Greybull	660			143	517					660	
Dayton, Yellowstone River	108						8	100		108	
Monarch, Yellowstone River	213					14	199			213	
Sheridan, Yellowstone River	2,097				14	114	300	1,000	669	2,097	
Buffalo, Yellowstone River	572						338	234		572	
Exams and Surveys	200	55									145
Subtotal - Corps of Engineers	3,850	55		143	531	128	845	1,334	669	3,650	145
DEPARTMENT OF AGRICULTURE											
Program of Conservation and Improvement Measures for Grassland and Cropland	59,481	2,136	1,220	1,320	1,470	1,845	2,529	2,737	3,017	12,918	43,207
Program for Forest and Forest Range Lands	68,586	1,413	1,026	1,076	1,376	1,916	2,369	2,750	3,009	12,496	53,651
Program for Stabilizing Measures for Small Watercourses	60,324				100	196	595	907	1,280	3,078	57,246
Program in Aid of Irrigation	29,128	924	521	621	721	769	867	926	1,071	4,975	22,708
Program to Improve Drainage on Agricultural Lands											
Program of Soil Surveys and Land Classification	2,500	31	7	38	70	80	115	115	115	533	1,929
Program of Research and Investigation	6,670	70	40	222	342	440	734	691	717	3,146	3,414
Program of Extension Education	4,205			10	20	63	83	98	120	394	3,811
Supporting Credit Program (Administrative only)											
Rural Electrification (Special Studies only)	15				15					15	
Subtotal - Dept. of Agriculture	230,909	4,574	2,814	3,287	4,114	5,309	7,292	8,224	9,329	37,555	185,966

WYOMING

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Feature or Project	Estimated Total Cost	Costs to End of F.Y. 1951	1952 F.Y. Funds	Funds Required by Fiscal Years						Total Est. Costs 6 Yr. Program 1953-1958	Funds Reqd after F.Y. 1958
				1953	1954	1955	1956	1957	1958		
DEPARTMENT OF THE INTERIOR (Continued)											
Bureau of Reclamation - Region 6 (Contd)											
Shoshone Project - R & B	395	272	65	58						58	
Subtotal	317,744	73,889	9,713	6,950	8,873	10,126	24,897	34,373	38,145	123,364	110,778
Bureau of Reclamation - Region 7											
Kortes	14,593	14,497	96								
Glendo	44,384	530	550	6,300	12,500	14,840	9,664			43,304	
Transmission Lines (Also Colorado and Nebraska)	49,053	9,150	2,224	3,346	6,531	7,831	445			18,153	19,526
Kendrick	31,319	23,617	2,552	4,141	730	279				5,150	
Guernsey Unit	2,750			37	50	750	1,200	713		2,750	
North Platte (See Nebraska)											
Subtotal	142,099	47,794	5,422	13,824	19,811	23,700	11,309	713		69,357	19,526
Subtotal - Bureau of Recl.	459,843	121,683	15,135	20,774	28,684	33,826	36,206	35,086	38,145	192,721	130,304
U.S. Geological Survey											
Topographic Surveys and Mapping			400	700	700	800	800	800	900	4,800	
Geologic and Mineral Resource Surveys and Mapping			244	465	460	496	559	564	565	3,109	
Water Resources Investigations			177	397	449	454	440	436	424	2,600	
Classification of Lands			33	44	45	45	52	52	52	290	
Supervision of Mining and Oil and Gas Leases			145	155	155	160	160	165	165	960	
Subtotal			999	1,761	1,809	1,955	2,011	2,117	2,106	11,759	
Fish and Wildlife Service											
Management of Fish and Wildlife Resources											
Adm. of Fish and Game Laws			6	6	6	7	6	7	6	38	
Propagation and Distribution of Food Fishes			46	42	42	42	43	43	43	255	

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Feature or Project	Estimated Total Cost	Costs to End of F.Y. 1951	1952 F.Y. Funds	Funds Required by Fiscal Years						Total Est. Costs 6 Yr. Program 1953-1958	Funds Req'd after F.Y. 1958
				1953	1954	1955	1956	1957	1958		
DEPARTMENT OF THE INTERIOR (contd)											
Bureau of Mines (contd)											
Minerals and Metals											
Ferrous Metals			47	179	40	41	41	41	42	384	
Nonferrous Metals			2	2	2	13	3	3	4	17	
Nonmetallic Minerals			13	13	13	13	13	13	13	78	
Control of Coal Deposit Fires			55	55	62	60	60	60	60	355	
Health and Safety			20	27	27	27	27	27	27	162	
Construction			16	(a) 233	62	60				345	
Administration			14	15	15	16	16	17	17	96	
Subtotal			747	1,554	1,030	1,021	972	978	999	6,554	
Bureau of Land Management											
Management of Lands and Resources											
Grazing			111	150	142	128	129	129	129	807	
Forestry			19	15	16	14	13	14	14	86	
Resource Development and Rehabilitation											
Soil & Moisture Conservation	6,943	565	103	200	350	450	600	700	800	3,100	3,175
Range Improvement			62	120	205	275	325	375	425	1,725	2,050
Fire Control			28	10	10	9	9	8	8	54	
Lease and Disposal of Lands and Resources			50	50	52	52	52	51	51	308	
Land Classification and Resource Inventory											
Regular Program			8	12	13	16	17	16	15	89	
Special MRS Program	1,179	511	69	98	109	106	96	80	70	559	40

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NOTES

SIX YEAR PROGRAM FOR MISSOURI RIVER BASIN prepared by MISSOURI BASIN INTER-AGENCY COMMITTEE

- (a) 59 percent of North Dakota in Basin; 70 percent of state affected.
- (b) Includes approximately \$9,000 in funds transferred to Public Health Service by Bureau of Reclamation, Region 6, for Water Pollution Control Studies in James and Missouri-Souris Basins.
- (c) This figure includes only the estimated total costs of programs and measures for which a total estimate is available and excludes any estimate for continuing programs and other activities for which a total estimate is not available. This precludes a balancing of the figures in this line.
- (d) Figures include estimated costs of operation of boats and terminals on Missouri portion of inland waterways system, and are based on actual operations during the typical month of May 1950. The figures are not available on a state basis.
- (e) This item represents an allocation of the normal expenditures of certain Bureaus in the Department of Commerce to the Missouri Basin Area. These expenditures are not specifically earmarked for the Missouri Basin as such, but rather represent a calculated proportion of the total expenditures for certain activities of the Department related to economic information and development which benefit the Missouri Basin Area. Inasmuch as the Department's economic information and surveys are compiled primarily for the use of the business population, the total expenditures for related activities (minus administration expenses) are here allocated to the Missouri Basin Area on the basis of the percentage of the nation's business establishments that were in the Missouri Basin in 1948 (5.4 percent). Activities included are those of the Bureau of Foreign and Domestic Commerce (including the Offices of Domestic Commerce, Business Economics, Field Service and International Trade -- the latter only in part) and of the Bureau of the Census. Not included in these estimates, although their work is related to the economic development of the Basin Area, are the expenditures of the Office of Technical Services, National Bureau of Standards, and other agencies of the Department.
- (f) Includes requirements for 17th Decennial Census and Census of Business.
- (g) Includes 17th Decennial Census, Census of Governments, and Census of Business (preparatory funds).
- (h) Includes Censuses of Governments, Business, Agriculture, and Manufactures.
- (i) Includes Censuses of Business, Agriculture, and Manufactures.
- (j) Includes Censuses of Business and Agriculture.
- (k) Includes preparatory funds for Census of Governments and 18th Decennial Census.
- (l) Not included in total and not distributed by States.
- (m) The figures for the U. S. Geological Survey show only Federal funds appropriated directly to the U. S. Geological Survey and Departmental Missouri Basin Project Funds transferred by Bureau of Reclamation to U. S. Geological Survey. These figures do not include any other funds transferred to the U. S. Geological Survey by Federal Agencies nor any State cooperative funds.
- (n) Does not include Defense Minerals Administration requirements or expenditures certified through Bureau of Mines - Geological Survey Field Teams.
- (o) Includes Pittman-Robertson and Clark-McNary funds.
- (p) Since a large proportion of benefits from measures primarily for reduction of floodwater and sediment damage will accrue offsite, it is contemplated that the non-federal cost will be met by a combination of the resources available to the governments of the states, counties, and other units of local government depending upon the circumstances surrounding the respective measures. (Table 23, H.D. 373, 81st Congress, 1st Session).

NOTES (Con't.)

SIX YEAR PROGRAM FOR MISSOURI RIVER BASIN prepared by MISSOURI BASIN INTER-AGENCY COMMITTEE

- (q) Research in coal utilization is to be conducted in the Coal Branch Laboratory located at the Denver Federal Center, and does not necessarily mean that the funds to be expended are identified entirely with Mineral Resources in the Missouri River Basin. However, results of some fundamental research will be applicable to coal and lignites within the Missouri Basin Area.
- (r) All figures included in parenthesis are non-add items which are included in the total for Bureau of Reclamation.
- (s) Includes proposed Shadow Mountain National Recreation Area and other Colorado - Big Thompson Reservoirs.
- (t) Includes Federal Grants-in-Aid.
- (u) Estimate based on materials being available.
- (v) The program of estimated expenditures includes the entire program of work for the agencies and institutions of South Dakota in the development of the land and water resources of the Missouri Basin in this State. The estimated expenditures include those for the normal functions of State Agencies, plus those funds required for accelerated programs of activity made by the River Program.
- (w) Approximately 76 percent of land area of Wyoming is located in the Missouri River Basin. Amounts shown are 76 percent of amounts available for the entire State for 1952, and are estimated for the years 1953 to 1958 inclusive on the basis of 76 percent of the estimated requirements for the entire State for this period.
- (x) The Petroleum and Natural Gas funds will be expended at the Experiment Station at Laramie, Wyoming (Missouri Basin). However, a large proportion of functions will pertain to natural resources from the Colorado River - Great Basin Region.
- (y) Oil Shale Research will be conducted at the Experiment Station at Laramie, Wyoming (Missouri Basin) However, all activity is in connection with resources located in the Colorado Basin.
- (z) New construction at Oil Shale Research Laboratory at Laramie, Wyoming, will be expended in the Missouri Basin. However, the resources to be benefited by such expenditure are wholly in the Colorado River Basin.
- (aa) Figures contained in "Development in National Park Service Areas" include development work on the following items: Construction of Roads and Trails - Buildings and Utilities, Historical and Archeological Research, Insect Control, Soil and Moisture Conservation, Blister Rust Control, Range Revegetation, Land Acquisition, and Weed Control.
- (bb) Program uncertain pending definite agreements as to marketing of power from Federal power plants.
- (cc) It is anticipated that additional amounts will be scheduled during the period 1953-1958 at a later date.
- (dd) Includes 4 years work.
- (ee) Appropriation for Corps of Engineers Projects is not available at time of preparation of this data; consequently estimated amounts have been used herein.





